

# US 60 | US 70 | US 191 CORRIDOR PROFILE STUDY

## FLORENCE JUNCTION TO DOUGLAS

ADOT Work Task No. MPD 013-16  
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### Draft Working Paper 1: Literature Review

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# LIST OF ABBREVIATIONS

| Abbreviation | Name   | Abbreviation | Name  |
|--------------|--|--------------|---|
| AASHTO       | American Association of State Highway and Transportation Officials | SR           | State Route                                     |
| ADOT         | Arizona Department of Transportation                               | STB          | State Transportation Board                      |
| AZTDM        | Arizona Travel Demand Model  | STP          | Surface Transportation Program                  |
| BLM          | Bureau of Land Management  | SVMPO        | Sierra Vista Metropolitan Planning Organization |
| BQAZ         | Building a Quality Arizona   | SWAP         | State Wildlife Action Plan                      |
| CAG          | Central Arizona Governments  | TAC          | Technical Advisory Committee                    |
| CIP          | Capital Improvement Program  | TI           | Traffic Interchange                             |
| DCR          | Design Concept Report  | TIP          | Transportation Improvement Program              |
| DMS          | Dynamic Message Signs  | TMP          | Transportation Master Plan                      |
| HSIP         | Highway Safety Improvement Program                                 | UPRR         | Union Pacific Railroad                          |
| FHWA         | Federal Highway Administration                                     | US 60        | U.S. Route 60                                   |
| FY           | Fiscal Year  | US 70        | U.S. Route 70                                   |
| LCCA         | life- cycle cost analysis  | US 191       | U.S. Route 191                                  |
| LOS          | Level of Service   | vpd          | vehicles per day                                |
| LRTP         | Long-Range Transportation Plan                                     | WB           | Westbound                                       |
| LRTP         | Long Range Transportation Plan                                     | YMPO         | Yuma Metropolitan Planning Organization         |
| MAG          | Maricopa Association of Governments                                |              |   |
| MP           | Milepost   |              |   |
| P2P          | Planning to Programming Linkage                                    |              |   |
| PA           | Project Assessment   |              |   |
| PAG          | Pima Association of Governments                                    |              |   |
| PARA         | Planning Assistance for Rural Areas                                |              |   |
| POE          | Ports of Entry   |              |   |
| RSA          | Road Safety Assessment   |              |   |
| RSRSM        | Regionally Significant Routes for Safety and Mobility              |              |   |
| RTP          | Regional Transportation Plan                                       |              |   |
| SEAGO        | SouthEastern Arizona Governments Organization                      |              |   |
| SATS         | Small Area Transportation Studies                                  |              |   |
| SCT          | Secretaria de Comunicaciones y Transportes                         |              |   |
| SHS          | State Highway System   |              |   |

## 1.0 INTRODUCTION

The Arizona Department of Transportation (ADOT) has identified eleven corridors considered essential in defining the overall health of the statewide transportation system, and is conducting a series of Corridor Profile Studies to plan for their desired performance. These Corridor Profile Studies will link the statewide plan, *What Moves You Arizona*, and the *Planning to Programming Linkage (P2P)*, which are part of a framework designed to integrate the planning and programming processes in a transparent, defensible, logical, and reproducible way.

The eleven corridors are being evaluated within three separate groupings.

The first three studies (**Round 1**) began in spring 2014 and encompass:

- I-17: SR 101L to I-40
- I-19: I-10 to Mexico International Border
- I-40: California State Line to I-17

The second round (**Round 2**) of studies, initiated in spring 2015, include:

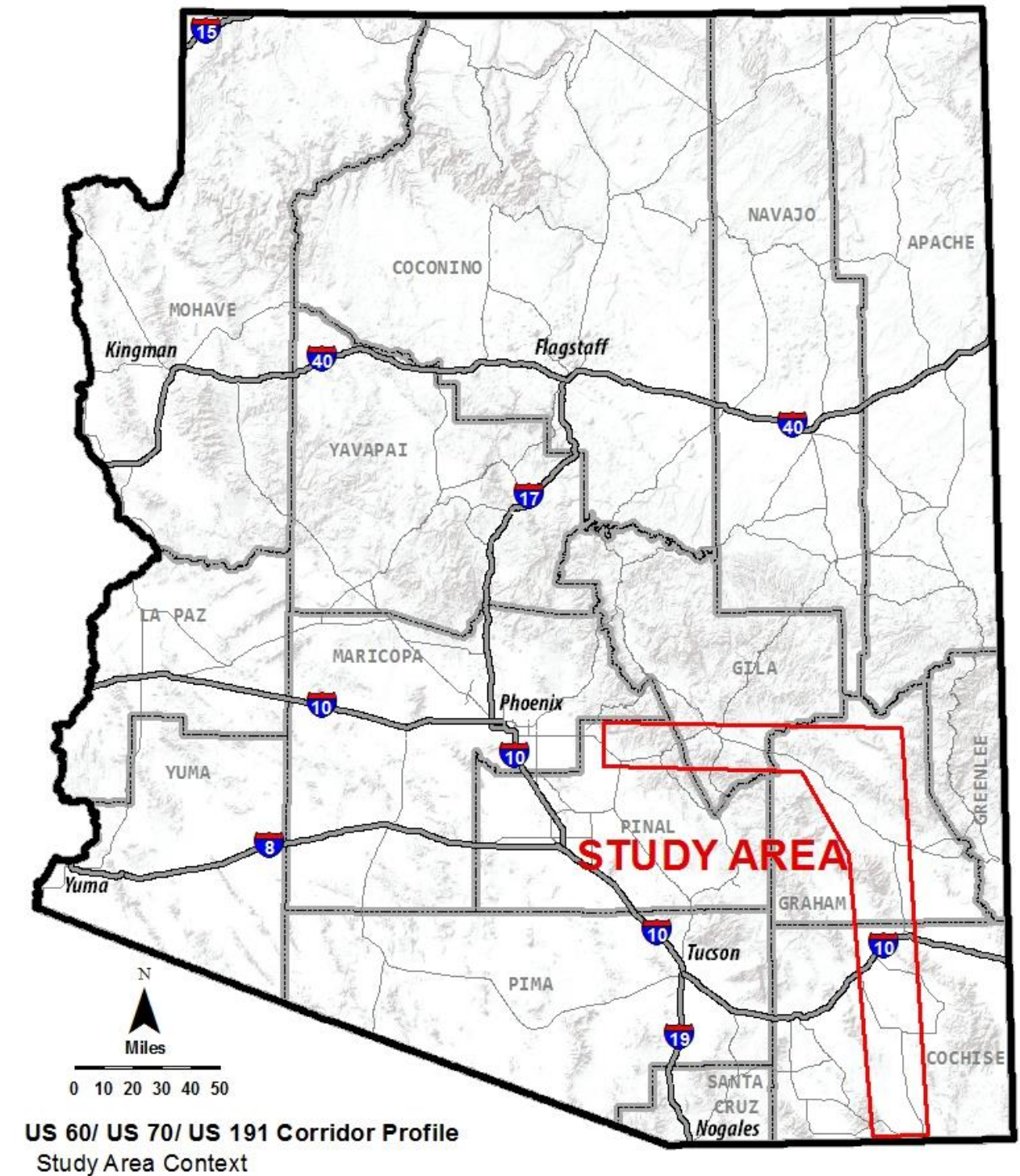
- I-8: California State Line to I-10
- I-40: I-17 to New Mexico State Line
- SR 95: I-8 to I-40

The third round (**Round 3**) of studies, started in November 2015, include:

- I-10: California State Line to SR 85 and SR 85: I-10 to I-8
- I-10: SR 202L to New Mexico State Line
- SR 87/SR 260/SR 377: SR 202L to I-40
- US 60/US 70: SR 79 to US 191 and US 191: US 70 to SR 80
- US 93/US 60: Nevada State Line to SR 303L

**US 60 | US 70: SR 79 to US 191 and US 191: US 70 to SR 80**, depicted in **Figure 1**, is one of the strategic statewide corridors identified and the subject of this Corridor Profile Study (**Round 3**).

Figure 1: Corridor Study Area



## 1.1 Corridor Overview

The US 60|US 70|US 191 corridor links the Mexico border at the City of Douglas to agricultural, mining and recreational activity in southeastern Arizona. In general, all three highways are two-lane facilities designed for relatively modest traffic volumes in a rural setting. At the same time, the corridor offers some unique benefits within the Arizona circulation system that could be leveraged for a higher level of performance as the need arises.

US 191 provides a link between Mexico and I-10, the main east-west corridor along the southern states. As a result, US 191 serves as a major freight corridor for goods moving between Mexico and the US. Similarly, the combination of US 191 and US 70 between I-10 and Globe offers a critical connection to mining and agricultural interests located in the greater Safford/Globe areas of Graham and Pinal Counties. US 60 between Globe and SR 79 ties all the activities within the corridor, along with additional mining and recreational opportunities along US 60, to the major population and commerce center of the Phoenix metropolitan area.

The combination of all three highways (US 60|US 70|US 191) creates a potentially significant alternative to I-10 for north-south travel in the eastern reaches of Arizona. A seamless connection among the three routes as a reliever to growing congestion along I-10 and at the border crossing in Nogales could have major implications for improving international, interstate and intrastate trade along with opening access to financial and commercial distribution centers in the Phoenix area. It would also provide enhanced accessibility to tourist and recreational opportunities in southeastern Arizona.



## 1.2 Corridor Study Purpose

The purpose of the Corridor Profile Study is to define a comprehensive corridor planning and programming approach to help make system-appropriate decisions. This is achieved by measuring corridor performance and using the findings to inform improvement solutions. Life-cycle cost analysis (LCCA) and risk assessment are applied in developing corridor recommendations. This Corridor Profile Study will define a process to:

- **Inventory** past improvement recommendations,
- Define **goals and objectives** for the future of the corridor,
- Assess **existing performance** based on quantifiable performance measures,
- Propose various **solution sets** to help achieve performance goals and objectives
- **Identify projects** that provide quantifiable performance benefit, and
- **Prioritize** the projects for future implementation.

## 1.3 Study Goals and Objectives

The primary objective of this study is to identify a recommended set of potential projects for consideration in future construction programs derived from a transparent, defensible, logical, and replicable process. The US 60|US 70|US 191 Corridor Profile Study will define solution sets and improvements for the routes that can be evaluated and ranked to determine which investments offer the greatest performance benefit. . Corridor benefits will be categorized by the following three investment types:

- **Preservation:** Activities that protect transportation infrastructure by sustaining asset condition or extend asset service life.
- **Modernization:** Highway improvements that emphasize upgrading efficiency, functionality, and safety over adding capacity.
- **Expansion:** Improvements that add transportation capacity through the addition of new facilities and or services.

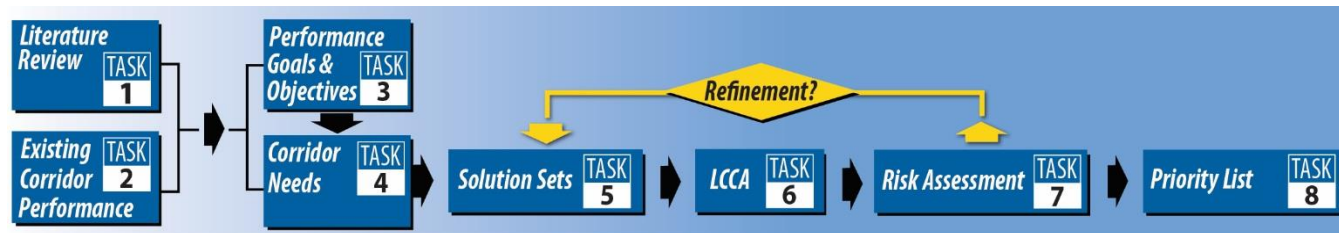
This study will identify potential actions to maintain acceptable levels of performance in the US 60|US 70|US 191 corridor . Proposed actions will be compared based on their ability to achieve desired performance levels, life-cycle costs, and cost-benefits and the risk associated with reaching desirable measures. These actions will be evaluated to produce a prioritized list of projects that help achieve corridor goals. The following goals have been identified as the outcome of this study:

- Link project decision-making and investments on key corridors to strategic goals.
- Match solutions with deficiencies in measured performance.
- Prioritize improvements that cost-effectively preserve, modernize, and expand transportation infrastructure.

## 1.4 Study Process

The study process will progress through eight tasks, as shown in **Figure 2**. The results of this analysis will provide candidate projects for P2P prioritization and will inform the *Long Range Transportation Plan Update* (LRTP).

**Figure 2: Corridor Profile Study Tasks**



- **Task 1** assesses work already completed in the corridor through a literature review
- **Task 2** determines existing corridor performance based on data collected for the identified performance areas (pavement, bridge, mobility, safety and freight)
- **Task 3** develops long-term goals and objectives that define how the corridor can be expected to function, its primary purpose and performance emphasis areas
- **Task 4** determines corridor needs by comparing existing conditions to expected performance
- **Task 5** formulates solutions to raise performance levels throughout the corridor with a focus on high need areas
- **Task 6** estimates the cost of solutions using life-cycle cost analysis (LCCA) and benefit cost analysis (BCA) approaches to ensure a full understanding of the long term costs to be managed
- **Task 7** performs a risk-based assessment to ensure that the solution set selected is the most effective at enhancing corridor performance. Where necessary, solution sets can be modified to maximize their performance contribution.
- **Task 8** describes the strategic projects comprising the solution set using a Project Scoping Template

## 1.5 Working Paper 1 Overview

The objective of this working paper is to review planning, environmental, design and construction efforts that have been completed on the US 60|US 70|US 191 Corridor within the past 15 years. Several studies have been conducted over the years by ADOT and others. Their recommendations recommend corrections to resolve issues that limit corridor performance. Some of the specific improvement projects are programmed for implementation. Task 1 will provide a basis for understanding the existing condition of US 60|US 70|US 191 and will be assessed in detail in Task 2. As appropriate, recommended improvements from previous studies will be incorporated into solution sets during Task 5. The work breakdown of Task 1 includes the following activities.

- **Segmentation of US 60|US 70|US 191** - Segments have been defined based on similar operating environments (i.e., highway usage, roadway cross section, jurisdictional limits, and traffic conditions) and data availability to allow for the appropriate level of analysis.
- **Review of Corridor Planning, Environmental, Design and Construction Efforts** - The literature review for work occurring during the past 15 years has been completed. In addition to documenting this information in Working Paper 1, as appropriate, the approved studies will be linked to APlan so that all users can benefit from the comprehensive review.
- **Stakeholder Discussions** – Support from ADOT Districts, ADOT technical staff and local MPOs and COGs was included in identifying previous work and in providing a dimension of historical knowledge difficult to fully capture in reports.

## 1.6 Study Location and Corridor Segments

The US 60|US 70|US 191 Corridor Profile Study limits extend along US 191 from Douglas to I-10, then continuing along US 191 from I-10 to Safford to the junction with US 70, then following US 70 from Safford, passing through the San Carlos Apache Reservation to Globe, and transitioning to the US 60 from Globe, through Superior to Florence Junction at the US 60/SR 79 intersection. Study segments were identified based on consideration of roadway, traffic and jurisdictional characteristics to allow for an appropriate level of analysis for segments of similar operating environments. Seventeen segments have preliminarily been identified to be considered by the project team. **Table 1** (Page 4) and the Corridor Map (**Figure 3**, Page 6) describe these segments. Based on team input and data collection, the segment limits may be adjusted as the study progresses.

Table 1: US 60 | US 70 | US 191 Corridor Segments

| Segment          | Begin                         | End                           | Begin MP | End MP | Length (mi) | Thru Lanes | 2014 ADT (vpd) | Character Description   |
|------------------|-------------------------------|-------------------------------|----------|--------|-------------|------------|----------------|---|
| <b>US 191</b>    |                               |                               |          |        |             |            |                |   |
| <b>191B – 1A</b> | U.S. Mexico Border            | US 191 Junction               | 0.0      | 1.0    | 1           | 2,2        | 8,000 – 13,000 | <i>This segment begins at the Douglas Port of Entry and continues north along US 191B (Pan American Avenue) until the intersection with US 191 (16th Street). The high traffic counts can be attributed to the international border crossing as well as the mixed industrial/commercial/residential uses along the route. <b>This segment will not be included in this study as the facility is currently being turned over from ADOT to Douglas.</b></i> |
| <b>191-1</b>     | US 191B Junction              | Elfrida                       | 0.0      | 24.0   | 24          | 1,1        | 1,000 – 2,000  | Starting from MP 0 along US 191, this segment is primarily rural in nature, but is the only route to the Bisbee-Douglas International Airport.  |
| <b>191-2</b>     | Elfrida                       | I-10                          | 24.0     | 67.0   | 43          | 1,1        | 1,000 – 2,000  | Beginning in Elfrida, a census-designated place, this segment connects smaller agricultural communities to each other and I-10.   |
| <b>191-3</b>     | I-10                          | SR 266                        | 87.0     | 104.0  | 17          | 2,2        | 2,000          | No known developments exist along this segment however, it does connect the Arizona State Prison at Fort Grant to I-10 via SR 266.  |
| <b>191-4</b>     | SR 266                        | Safford City Limit            | 104.0    | 116.0  | 12          | 1,1        | 3,000 – 7,000  | Land along this segment is primarily owned by the Bureau of Reclamation and is therefore undeveloped. The segment begins at SR 266 and ends at approximately the southern limits of Safford. Traffic numbers in this segment increase due to the development south of Safford.  |
| <b>191-5</b>     | Safford City Limit            | US 70 Junction                | 116.0    | 121.0  | 5           | 2,2        | 8,000 – 9,000  | This segment starts at approximately the southern limits of Safford and ends at the junction with US 70. The segment is differentiated by jurisdiction and change in route along the corridor rather than any changes in terrain or traffic.  |
| <b>US 70</b>     |                               |                               |          |        |             |            |                |   |
| <b>70-6</b>      | US 191 Junction               | Pima                          | 339.0    | 330.0  | 39          | 2,2        | 5,000 – 23,000 | Beginning at the junction with US 191 in Safford and ending at the northern limit of Pima, this segment has very high traffic volumes which can be attributed to the higher density of surrounding communities and agricultural/mining operations. A large majority of the land abutting the route is privately owned.  |
| <b>70-7</b>      | Pima                          | San Carlos Apache Reservation | 330.0    | 300.0  | 30          | 1,1        | 3,000 – 5,000  | This segment connects the western limit of Pima to the eastern edge of the San Carlos Apache Reservation. A majority of the land abutting US 70 is privately owned and used for agricultural purposes.  |
| <b>70-8</b>      | San Carlos Apache Reservation | Bylas                         | 300.0    | 298.0  | 2           | 1,1        | 3,000          | Beginning at the eastern limits of the San Carlos Apache Reservation, this short segment terminates at the eastern limits of Bylas.   |
| <b>70-9</b>      | Bylas                         | Bylas                         | 298.0    | 293.0  | 5           | 1,1        | 3,000          | Bylas is a census-designated place within the San Carlos Apache Reservation. The boundary of this segment was determined by the extent of development and not necessarily the jurisdictional limits.  |

| Segment  | Begin                         | End                           | Begin MP | End MP | Length (mi) | Thru Lanes | AADT (2014)    | Character Description  |
|----------|-------------------------------|-------------------------------|----------|--------|-------------|------------|----------------|--|
| 70-10    | Bylas                         | Peridot                       | 293.0    | 274.0  | 9           | 1,1        | 3,000          | This segment begins at the western extent of development in Bylas and extends to the eastern limits of development in Peridot. The segment is within the San Carlos Reservation and has low traffic volume.  |
| 70-11    | Peridot                       | Peridot                       | 274.00   | 270.00 | 4           | 1,1        | 3,000          | The segment starts at the new medical center at the eastern limits of Peridot and extends west to the high school. It is differentiated by jurisdiction rather than any changes in terrain or traffic.   |
| 70-12    | Peridot                       | San Carlos Apache Reservation | 270.00   | 255.00 | 15          | 1,1        | 4,000 – 7,000  | Beginning at the Peridot High School and continuing to the western limit of the San Carlos Apache Reservation, this segment is differentiated by jurisdiction rather than any changes in terrain or traffic.   |
| 70/60-13 | San Carlos Apache Reservation | Miami                         | 255.00   | 243.00 | 12          | 2,2        | 3,000 – 28,000 | Beginning at the western limits of the San Carlos Apache Reservation, this segment goes through the City of Globe, Claypool and Miami. Although this segment includes US 70 and US 60, there is no change in cross section therefore, the segment is differentiated by jurisdiction rather than any other changes. Higher traffic counts are due to the junction of US 60 and US 70 along with higher traffic counts and the proximity of large mines. |
| US 60    |                               |                               |          |        |             |            |                |  |
| 60-14    | Miami                         | Superior                      | 243.00   | 227.00 | 16          | 1,1        | 7,000 – 9,000  | Beginning at the western limits of Miami and extending to the eastern limits of Superior, this segment bisects the Tonto National Forest. The high traffic volume can be attributed to the fact that this segment is the only route connecting the City of Superior to the Miami, Claypool and Globe area.   |
| 60-15    | Superior                      | Superior                      | 227.00   | 225.00 | 2           | 1,1        | 10,000         | This segment starts and ends at approximately the eastern and western limits of Superior. This segment is differentiated by jurisdiction rather than any changes in terrain or traffic.  |
| 60-16    | Superior                      | Forest Road 357               | 225.00   | 223.00 | 2           | 1,1        | 9,000          | This segment is bounded by the Tonto National Forest and is differentiated by the number of thru east and west lanes rather than changes in terrain or jurisdiction.   |
| 60-17    | Forest Road 357               | SR 79                         | 223.00   | 212.00 | 11          | 2,2        | 10,000         | Although this segment is generally flat in nature, it is differentiated by the number of thru lanes, compared to 60-16. Beginning at State Forest Road 357, this segment terminates at the interchange with SR 79.   |



US 60 Pinto Creek Wash Bridge



US 70 at the US 191 Junction

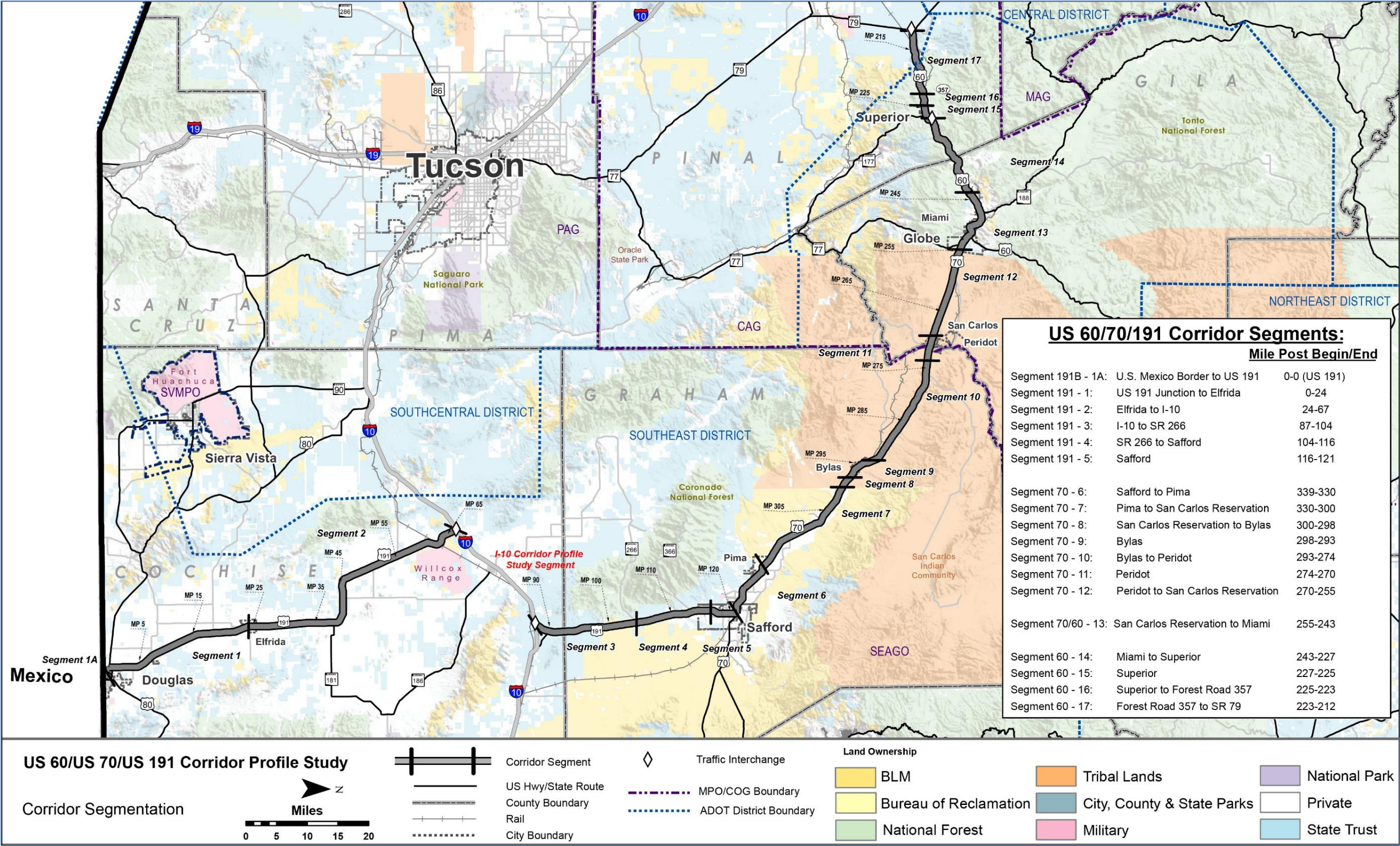


US 191 in Safford



Pavement cracking on US 191 at MP 165

Figure 3: US 60 | US 70 | US 191 Corridor Study Segmentation



## 1.7 Corridor History

This corridor profile analysis will evaluate the corridor as two distinct sections. US 191 serves as a major north-south collector serving the easternmost portion of the state; while US60|US70 is an east-west arterial serving the central part of the state. This section describes the history of these sections as they were developed incrementally over time.

### US 191: Douglas to I-10

This 67-mile segment of US 191 from Douglas to Safford was initially identified and constructed as SR 81. The section from Douglas (MP 0) to Kansas Settlement (MP 43) was constructed as a 22 to 28 foot roadway in the late 1930s. In 1942, SR 81 from Douglas to Safford and SR 71 from Safford to US 66 was re-designated as US 666. In 1992, US 666 was re-designated as US191. The section from Kansas Settlement to the Cochise Railroad crossing (MP 62.5) was constructed as a 30-foot roadway in the late 1940s. The connection from the railroad overpass to SR 86 (future I-10) was constructed as a 34-foot roadway in the early 1940s. In the early 1970s, the section from Douglas to Elfrida (MP 23.5) was reconstructed to a 40-foot roadway. No major reconstruction projects have occurred on this section of roadway since then; however shoulder widening, drainage improvements and turn lanes have been added in some locations to address local needs.

### US 191: I-10 to Safford

This 34-mile segment of US 191 consists of two segments. From I-10 to SR 366 (MP 111), the current alignment was built in the 1940s as a 28-foot roadway. Between 2000 and 2010, a parallel roadway was added on the east side to complete a 4-lane divided highway between I-10 and SR 266 (MP 104.5). In 1980, the section between SR 266 and SR 366 was widened to 38-feet. The section from SR 366 to Junction US 70 (MP 111 – MP 121) was constructed in the late 1950s as a 40-foot roadway with wider sections and an urban cross-section within the City of Safford (i.e., with curb and gutter). Only minor improvements have been made since then.

### US 70: Junction US 191 (Safford) to US 60|US 70 Junction

US 70, commissioned in 1936, linked communities in the southeastern and south-central US to the west coast; running from North Carolina to California. It was also known as the Atlantic-Pacific Highway. In the 1920s and 1930s, between Safford and Globe in Arizona, US 70 generally followed the alignment of the Southern Pacific Railroad (Arizona Eastern). Following completion of the Coolidge Dam in the 1930s, the route was relocated across the top of the dam. This moved the alignment between Cutter (MP 259) and MP 294 to its present location. In the late 1950s, a completely new alignment was built as a 34-foot roadway which ran more directly between Cutter and Bylas with a new Gila River crossing. This re-alignment is likely the reason for the Mile Post Equation at MP 314.21, resulting in the current segment length of 76 miles. About the same time,

US 70 between Bylas and Safford was widened to 40-feet on the existing alignment. Roadway sections were widened in the urban portions of Pima, Thatcher and Safford in the early 1960s. More recently (early 2000s), urban cross-sections have been built between Pima, Thatcher and Safford. No major revisions to the roadway within the corridor have occurred outside the urban areas except for the addition of turn lanes.

### US 60 | US 70

US 60 was established in 1926 as one of the first east-west trans-continental routes running from Los Angeles, California to Norfolk, Virginia. US 70 was commissioned in 1936 as an east-west trans-continental route running from Los Angeles, California to the North Carolina coast. Within Arizona and California, the routes were co-numbered with the exception of the segment between Globe and the New Mexico State Line. With the construction of Interstate 10, California decommissioned both US 60 and US 70 and in 1969 Arizona decommissioned US 70 between Ehrenberg and Globe.

### US 60: US 70 to Florence Junction

While a US 60 roadway existed prior to the 1940s, much of the current 40-mile existing roadway within the project area was constructed in the late 1940s and early 1950s. This segment of US 60 links metro Phoenix to Miami, Globe, Superior, Winkelman, Kearney and Safford, as well as to Roosevelt Lake and the White Mountains area. The Florence Junction to Superior segment was constructed in the late 1940s as a 40-foot roadway. Construction of a new parallel roadway to complete a four-lane divided section is currently being built.

With the exception of the first two miles north of Superior, which includes the Queen Creek Bridge (1949) and Tunnel (1952), the remainder of the 40-foot roadway between Superior and Miami (MP 227 to MP 243.5) was constructed in the late 1930s and early 1940s. However, due to the mountainous terrain, it utilizes several structures that were part of the previous road. There have been no major modifications since other than the addition of climbing/passing lanes and intersection improvements. From Miami through Globe, most of US 60 was built or modernized using existing city streets during the 1950s. The roadways were generally a minimum of four lanes with curb and gutter. No major roadway revisions have taken place since then with the exception of the Willow Street – Hill Street relocation (1977) which moved the route designation from the narrow city streets to a new by-pass.

## 2.0 LITERATURE REVIEW

Past planning and design studies related to the US 60|US 70|US 191 corridor were reviewed to understand the full context of future planning and design efforts within and around the study area. These studies and relevant recommendations are summarized, respectively, in **Table 2** and **Table 3**. **Table 3** identifies recommendations by investment category consisting of Preservation, Modernization and Expansion. The studies examined were prepared by a range of sources, including local agencies, ADOT, MPOs, COGs and other statewide management agencies. The review of these past studies provides an overview of the context in which US 60|US 70|US 191 currently operates, as well as the future growth that should be anticipated for the corridor. The US 60|US 70|US 191 corridor serves a vital function within the state by providing for a significant amount of freight movement, included as both truck traffic on US 60|US 70|US 191 and train traffic parallel to US 60 and US 70. An overview of relevant recommendations for the US 60|US 70|US 191 corridor is shown graphically in **Figure 4**.

Past studies examined are listed as follows, grouped into the categories of Framework Studies, Regional Planning Studies, Planning Assistance for Rural Areas (PARA) and Small Area Transportation Studies (SATS), Design Concept Reports (DCRs) and Project Assessments (PAs). Additionally, **Table 4** summarizes construction projects that have occurred along the corridor within the last five years and **Table 5** lists the projects currently in design.

### Framework and Statewide Studies

- ADOT Bicycle and Pedestrian Plan Update
- ADOT Five-Year Transportation Facilities Construction Program 2016 - 2020
- ADOT Climbing and Passing Lane Prioritization Study
- Arizona Key Commerce Corridors
- Arizona Multimodal Freight Analysis Study
- Arizona Ports of Entry Study
- Arizona State Airports System Plan
- Arizona State Rail Plan
- Arizona Statewide Dynamic Message Sign Master Plan
- Arizona Statewide Rail Framework Study
- Arizona Statewide Shoulders Study
- Arizona Roadway Departure Safety Implementation Plan (RDSIP)
- Arizona Wildlife Action Plan / Arizona Wildlife Linkages Assessment
- Building a Quality Arizona (BQAZ)
- Eastern Arizona Framework Study
- FHWA Freight Analysis Framework
- MAG 2035 RTP
- What Moves You Arizona? Long-Range Transportation Plan 2010-2035

### Regional Planning Studies

- Arizona – Sonora Border Master Plan
- Bi-National Border Transportation Infrastructure Needs Study
- Gila County Rail Passenger Study
- Graham County Transit Feasibility Study
- Pinal County Comprehensive Plan Update
- Pinal County Open Space and Trails Master Plan
- Pinal County Regionally Significant Routes for Safety and Mobility Study
- Pinal County Transit Feasibility Study
- Pinal Creek Trail Conceptual Plan
- Safford General Plan
- SEAGO Transportation Coordination plan Update
- SR 80 & US 191 Oversized Load Study

### PARAs and SATS

- Cobre Valley Comprehensive Transportation Study
- City of Douglas Small Area Transportation Study
- Gila County Small Area Transportation Study
- Gila County Transportation Study
- Graham County Alternate Route Study
- Graham County/ Safford/ Thatcher/ Pima Small Area Transportation Study
- San Carlos Apache Tribe Transit Feasibility Study

### Design Concept Reports and Project Assessments

- US 60 Florence Junction – Superior DCR
- US 60 Superior – Globe Feasibility Study
- US 60 Superior – Globe Scoping (MP 222 – MP 258)
- US 70 Bylas Road Safety Assessment
- US 70 Segment 1 Pima – Thatcher FDCR
- US 70 Segment 2 Thatcher – Safford FDCR
- US 191 Douglas to I-10 FDCR
- US 191 I-10 to SR 266 FDCR
- US 191 Jct SR 266 to US 70 Final Corridor Selection Report
- US 191 Whitewater Draw to Thompson Rd FDCR
- US 60 Passing Lanes (Miami-Superior) Final Project Assessment

**Table 2: Relevant Studies and Plans**

| DOCUMENT  | DATE COMPLETED        | AGENCY | SUMMARY  |
|---|-----------------------|--------|--|
| <b>FRAMEWORK and STATEWIDE STUDIES</b>                                    |                       |        |  |
| ADOT Statewide Bicycle and Pedestrian Plan Update                         | April 2013 (Final)    | ADOT   | <p>The purpose of the 2013 ADOT Statewide Bicycle and Pedestrian Plan Update is to build off of the long-term vision for a statewide system of interconnected and shared roadways and pedestrian/bicycle facilities offered in the 2003 plan. The 2012 update addresses the most critical bicycle and pedestrian transportation planning needs on the State Highway System (SHS), and outlines strategies to meet the plan goals and objectives for increased bicycle and pedestrian trips, safety, and infrastructure. The US 60 US 70 US 191 corridor is recognized as having sufficient shoulder width for biking in certain areas, but the plan does identify a number of recommendations specific to the corridor.</p> <p><b>Priority Paved Shoulder Opportunities:</b></p> <ul style="list-style-type: none"> <li>US 60 Superior to Globe – Effective shoulder width is less than 4 feet. Rumble strips present in some areas (MP 227+0.97 – 340.34)</li> <li>US 60 Globe – Effective shoulder width is less than 4 feet (Main Street to Broad Street)</li> </ul> <p><a href="http://www.azdot.gov/ADOTLibrary/Multimodal_Planning_Division/Bicycle-Pedestrian/Bicycle_Pedestrian_Plan_Update-Final_Report-1306.pdf">http://www.azdot.gov/ADOTLibrary/Multimodal_Planning_Division/Bicycle-Pedestrian/Bicycle_Pedestrian_Plan_Update-Final_Report-1306.pdf</a></p>   |
| ADOT Five-Year Transportation Facilities Construction Program 2016 – 2020 | June 2015 (Adopted)   | ADOT   | <p>The purpose of the Five-Year Transportation Facilities Construction Program is to comply with Arizona Revised Statutes §28-304, to set forth the short-term program for developing projects, and to account for the spending of funds for the next five years. The program identifies the following projects, specific to the US 60 US 70 US 191 corridor:</p> <p><b>Highway Projects:</b></p> <ul style="list-style-type: none"> <li>US 60: Pinto Creek Bridge FY 2018 (MP 238 - 239)</li> <li>US 70: Passing lanes FY 2018 (MP 269 -271)</li> <li>US 70: Bylas Area Improvements FY 2016 (MP 291 -300)</li> <li>US 70: Bridge Replacement and Rehabilitation FY 2016 (MP 299 – 300)</li> <li>US 70: Tripp Canyon – 300 West Construct Ped Bridge FY 2017 (MP 329 – 330)</li> <li>US 70: Safford 20th Ave to 8th Street Safety Improvements FY 2018 (MP 338 – 340)</li> <li>US 191: Pavement Preservation FY 2016 (MP 114 – 118)</li> </ul> <p><b>Airport Projects:</b> Bisbee Douglas International, Cochise County, Safford Regional, and San Carlos Apache</p> <p>The first two years of the program are financially constrained by year. All projects in those years will be fully funded and ready to advertise in the year programmed or sooner, as determined by the State Transportation Board.</p> <p><a href="https://www.azdot.gov/docs/default-source/planning/2016-2020-program.pdf?sfvrsn=8">https://www.azdot.gov/docs/default-source/planning/2016-2020-program.pdf?sfvrsn=8</a></p> |
| ADOT Climbing and Passing Lane Prioritization Study                       | February 2015 (Final) | ADOT   | <p>The purpose of the 2015 Climbing and Passing Lane Prioritization Study was to refine the methodology used in previous plans to identify locations where passing and climbing lanes would benefit drivers on the Arizona highway system, and to recommend a list of climbing and passing lane improvements for phased implementation. The study serves as an update to the previous 2003 study, reflecting more recent data on mobility, safety, and construction feasibility. The report document describes the evaluation process, documents existing conditions, and proposes the construction of climbing and passing lanes in prioritized tiers. Each passing and climbing lane location is scored based on Mobility, Safety and Construction Feasibility and then ranked 1-3 (High to Low) priority based on the total points received.</p> <p><b>Passing Lane Locations:</b></p> <p>US 70 Eastbound Tier 2: MP 267 - 270<br/> US 70 Westbound Tier 2: MP 267 – 270<br/> US 70 Westbound Tier 2: MP 281 -288</p>   |

| DOCUMENT                                  | DATE COMPLETED     | AGENCY | SUMMARY   |
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|   |                    |        | <b>Climbing Lane Locations:</b><br>US 70 Eastbound Tier 2: MP 262-264<br>US 70 Westbound Tier 2: MP 282 - 288<br><a href="http://www.azdot.gov/ADOTLibrary/Multimodal_Planning_Division/Studies/2003_Climbing_Lane_Prioritization-Update-FR-0405.pdf">http://www.azdot.gov/ADOTLibrary/Multimodal_Planning_Division/Studies/2003_Climbing_Lane_Prioritization-Update-FR-0405.pdf</a>  |
| Arizona Key Commerce Corridors            | March 2014 (Final) | ADOT   | <p>The Key Commerce Corridors strategy implicitly emphasizes the importance of corridors for market access. The 20-year plan identifies the corridors critical to the promotion of trade and incorporates funding three areas of infrastructure improvements: Corridors, Borders, and Bridges. The focused strategy identifies improvements to obtain the greatest benefit for Arizona and proposes to increase available funding. The original vision evolved into a framework to improve mobility and efficiency, economic development potential and project related job creation. Recommendations specific to the US 60 US 70 US 191 corridor include:</p> <ul style="list-style-type: none"> <li>• Reconstruction of the US 191/I-10 interchange</li> <li>• Border crossing improvements at the Douglas POE including roadway and freight improvements</li> <li>• Three bridge infrastructure improvements with immediate needs               <ul style="list-style-type: none"> <li>○ US 60 East of SR 177</li> <li>○ US 60 Between SR 177 and SR 77</li> <li>○ US 60 At Globe</li> </ul> </li> </ul> <a href="https://www.azdot.gov/planning/CurrentStudies/key-commerce-corridors">https://www.azdot.gov/planning/CurrentStudies/key-commerce-corridors</a>  |
| Arizona Multimodal Freight Analysis Study | 2008 (Final)       | ADOT   | <p>ADOT completed the Multimodal Freight Analysis Study in 2008. This study addressed all modes of freight transportation in Arizona – trucking, rail and aviation – to provide a detailed assessment of critical freight issues and emerging trends, as well as their relationship to transportation policy and infrastructure. From this information, infrastructure needs and deficiencies were identified, as was a recommended strategy for including freight analysis as part of Arizona's long-range planning process. This study resulted in six high-level strategic directions:</p> <ul style="list-style-type: none"> <li>• Strengthen the relationship between freight and economic development: Engage the private sector in transportation planning, and market the link between transportation and Arizona's economy, working with the Arizona Department of Commerce (now the Arizona Commerce Authority).</li> <li>• Coordinate freight planning with local land use planning: Support local government efforts to develop land use planning guidelines for freight-intensive development, and encourage communities to work closely with the private sector when developing freight logistics centers.</li> <li>• Preserve and prioritize key freight operations: Support railroad mainline expansions, protect priority highway corridors for efficient freight movement, and establish/maintain a freight data collection program.</li> <li>• Enhance freight system safety and security: Incorporate heavy truck movements in highway design, expand Arizona's highway network for freight, and use innovative technology to improve highway operations for commercial vehicles.</li> <li>• Seek opportunities to improve freight operations: Target improvements at truck crash “hot spots,” provide safe and secure truck parking locations, monitor/improve the safety of railroad crossings with a crash history, and implement performance-based truck size and weight enforcement policies.</li> <li>• Promote environmental preservation and energy efficiency: Encourage green initiatives in the freight sector to reduce energy consumption and consider alternatives to highways for moving large volumes of freight between southern California and Arizona.</li> </ul> <p>The study did not identify any recommendations specific to the US 60 US 70 US 191 Corridor nor did it discuss funding and implementation strategies. This study is currently being updated by ADOT, although there are no updated recommendations at this time.</p> <a href="http://repository.asu.edu/attachments/109262/content/Arizona%20Multimodal%20Freight%20Study_FinalReport.pdf">http://repository.asu.edu/attachments/109262/content/Arizona%20Multimodal%20Freight%20Study_FinalReport.pdf</a> |
| Arizona Ports of Entry Study              | July 2013 (Final)  | ADOT   | <p>This report evaluates the 22 fixed sites and 14 locations operated by personnel who manage and perform inspections, provide permits, and perform other related duties. (It does not cover the border with Mexico.) The function of these ports of entry (POEs) is both to provide services to and enforce state and federal laws for interstate commercial vehicles entering and leaving the State of Arizona. The study contains information related to the current and future port conditions, as well as deficiencies and a set of recommendations for ADOT's POE operations over the next 20 years. This study does not mention the Douglas POE. <a href="http://repository.asu.edu/attachments/111922/content/Arizona%20Ports%20of%20Entry%20Study.pdf">http://repository.asu.edu/attachments/111922/content/Arizona%20Ports%20of%20Entry%20Study.pdf</a></p>   |

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| Arizona State Airport System Plan             | 2008                  | ADOT   | <p>The State Airport System Plan establishes a vision and provides an outlook of the state's aviation needs through 2030. The system planning process is designed to ensure ADOT remains responsive to air transportation needs by identifying roles and characteristics for existing and new airports. As airports in Arizona continue to evolve to respond to changes in the communities they serve and aviation industry trends, the performance measures established in the plan serve as a guide for balanced development. There are no recommendations specific to the US 60 US 70 US 191 corridor within this plan.</p> <p><a href="https://www.azdot.gov/planning/airportdevelopment/development-and-planning/state-airports-system-plan">https://www.azdot.gov/planning/airportdevelopment/development-and-planning/state-airports-system-plan</a></p>  |
| Arizona State Rail Plan                       | March 2011            | ADOT   | <p>As a follow-on step to the Statewide Rail Framework Study (part of the BQAZ Statewide Transportation Planning Framework Program), ADOT initiated the preparation of a State Rail Plan that responds to the requirements of the 2008 Passenger Rail Investment and Improvement Act. The State Rail Plan is based on the research and findings of the Statewide Rail Framework Study completed in October 2009. The State Rail Plan provides a 20-year implementation program and capital plan for statewide rail investment that includes the enhancement of freight rail infrastructure, and identifies the steps to institute intercity passenger rail services along key routes. The State Rail Plan resulted in development of a Rail Action Plan for immediate, intermediate, and long-range timeframes, together with funding strategies. The plan identifies four "Corridors of Opportunity" for freight and passenger rail improvements.</p> <p>Those that may be relevant to the US 60/ US 70/ US 191 corridor include:</p> <ul style="list-style-type: none"> <li>• Arizona Spine Corridor (existing) - spans the center of the state, from Page to the international border with Mexico</li> <li>• Sunset Corridor (existing) - east to west, generally following the UPRR Sunset Corridor, I-8 and I-10.</li> </ul> <p>The plan recommends corridor-specific actions for implementation of freight improvements and passenger rail services. These include:</p> <ul style="list-style-type: none"> <li>• Partner with Copper Basin Railway and Magma Arizona Railway to expand freight and consider passenger service that would support the emerging Sun Corridor.</li> <li>• Partner with UPRR to implement operational improvements that would support the emerging Sun Corridor.</li> <li>• Partner with Arizona Eastern Railway to explore providing rural passenger rail service. (medium-term)</li> </ul> <p>The recommendations for each corridor of opportunity (discussed above) have been classified into short-term (within 5 years), medium-term (within 10 years), and long-term (within 20 years).</p> <p><a href="http://www.azdot.gov/docs/planning/state-rail-plan.pdf?sfvrsn=0">http://www.azdot.gov/docs/planning/state-rail-plan.pdf?sfvrsn=0</a></p> |
| Arizona Statewide Dynamic Message Master Plan | November 2011 (Final) | ADOT   | <p>Dynamic Message Signs (DMS) is a continually developing technology that reports driver information and roadway conditions to motorists through electronically illuminated messages. There is no standard document or national set of criterion that guides the placement of DMS. The purpose of the Statewide DMS Master Plan is to provide specific justification, warrants, criteria, and consideration for permanent DMS design requirements for the Arizona highway system. The plan describes technical components, inventories existing DMS locations, establishes placement criteria, and proposes new DMS locations. The following existing and proposed DMS locations along the US 60 US 70 US 191 corridor have been identified in the master plan to address inclement weather conditions or incident management:</p> <p><b>Existing:</b></p> <ul style="list-style-type: none"> <li>• Westbound at MP 252.4 on US 60 in Globe</li> <li>• Eastbound at MP 252.6 on US 60 in Globe</li> </ul> <p><b>Proposed:</b></p> <ul style="list-style-type: none"> <li>• Eastbound at MP 247 on US 60 in Globe</li> <li>• Eastbound at MP 253 on US 70 in Globe</li> <li>• Southbound at MP 2 on US 191 in Douglas</li> <li>• Northbound at MP 2 on US 191 in Douglas</li> <li>• Southbound at MP 90 on US 191 near Willcox</li> <li>• Northbound at MP 116 on US 191 near Safford</li> </ul> <p><a href="http://www.azdot.gov/docs/default-source/business/dms-masterplan.pdf?sfvrsn=2">http://www.azdot.gov/docs/default-source/business/dms-masterplan.pdf?sfvrsn=2</a></p>  |

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| Arizona Statewide Rail Framework Study                            | March 2010 (Final)         | ADOT                             | <p>As a response to the growing demand for transportation infrastructure, the Arizona State Transportation Board (STB) allocated resources for a statewide collaborative planning process called “Building a Quality Arizona”, or BQAZ to quantify transportation needs statewide and identify the full range of options to address those needs. A series of Regional Framework Studies were key inputs into the Statewide Transportation Planning Framework. As one of the Framework Studies, the Statewide Rail Framework Study has formulated a rail development program and investment strategy for the State of Arizona that leads to a healthy and sustainable multimodal transportation system for the movement of people and goods.</p> <p>The project included a thorough public outreach process, addressing rail transportation needs across Arizona, and considered existing conditions and estimated future needs for both freight rail and passenger rail, with the latter including potential high-speed, intercity and commuter service. These efforts were followed by an identification of key issues and development of strategic opportunities. To meet identified needs for improvements to the existing rail system, recommended implementation pursuits and specific action items have been specified, which include modifications to existing rail systems or the establishment of new facilities and services.</p> <p><b>Relevant issues and findings related to the US 60 US 70 US 191 corridor include:</b></p> <ul style="list-style-type: none"> <li>• No direct rail route to Albuquerque</li> <li>• Relatively little airport congestion</li> <li>• Travel demand from the Sun Corridor area to Albuquerque may be too small</li> <li>• Public lands along possible corridors include various BLM, Arizona State trust lands, U.S. Forest Service, National Park Service, Navajo Nation, and other tribal lands</li> </ul> <p><a href="http://www.azdot.gov/docs/planning/rail-framework-study-final-report.pdf?sfvrsn=0">http://www.azdot.gov/docs/planning/rail-framework-study-final-report.pdf?sfvrsn=0</a></p> |
| Statewide Shoulders Study   | August 2015 (Final Report) | ADOT                             | <p>The Statewide Shoulders Study was initiated to develop a prioritized list of candidate locations for shoulder improvements. The need for this study stems directly from ADOT's desire to increase safety and mobility along the Arizona State Highway System. The project purpose is demonstrated with the following statement of need: Create Methodology, Develop List of Shoulder Improvement Locations and Develop Feasible, Cost Effective Implementation Plan.</p> <p>ADOT District Engineer Recommended Shoulder Improvement Locations: US 60: EB/WB Begin MP 242 – End MP 227</p> <p>The beginning and ending milepost range represents a general problem area and not the exact location or length for shoulder improvements.</p> <p><a href="http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/28230">http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/28230</a></p>   |
| Arizona Roadway Departure Safety Implementation Plan (RDSIP)      | May 2012                   | FHWA                             | <p>FHWA developed this implementation plan (in coordination with ADOT) with the goal of reducing roadway departure fatalities in Arizona by approximately 10-15 percent. The purpose of the plan is to propose low-cost countermeasures, key steps, schedules, and the investment needed as a basis for federal funding eligibility (HSIP funding). The plan proposed implementation (systematic or systemic) of the following low cost countermeasures coupled with targeted education and enforcement initiatives on roadways in Arizona based on 2004-2008 crash data: Rumble Strips (edge line, shoulder and/or centerline); guardrail upgrades; alignment delineation, lighting; curve signing and marking; high-friction surfaces; median barrier (cable median barrier); and tree removal. ADOT is currently evaluating the list of project locations to make specific project recommendations.</p>   |
| Arizona State Wildlife Action Plan / Wildlife Linkages Assessment | May 2012                   | Arizona Game and Fish Department | <p>This State Wildlife Action Plan (SWAP) and Wildlife Linkages Assessment provide a 10-year vision for achievement, subject to adaptive management and improvement along the way. The plan covers the entire state, identifying wildlife and habitats in need of conservation, insight regarding the stressors to those resources, and suggests actions that can be taken to alleviate those stressors. Using the Habimap Tool that creates an interactive database of the information included in the SWAP, the following were identified in relation to the US 60 US 70 US 191 corridor:</p> <ul style="list-style-type: none"> <li>• Wildlife waters to the north of US 60 near superior and to the east and west of US 191 between Safford and I-10</li> <li>• The Willcox Playa / Cochise Important Bird Area is located along the eastern side of US 191 from approximately MP 60 and continues north until I-10</li> <li>• A majority of the US 60/ US 70/ US 191 corridor bisects allotments/pastures except along US 70 along the San Carlos Reservation and along US 191 south of US 181</li> <li>• Some State Land holdings, primarily along US 191 between Safford and I-10, US Forest Service Land is located along US 60 and US 70 between AZ</li> </ul>  |

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|                                     |                  |        | <p>79 and AZ 77</p> <ul style="list-style-type: none"> <li>Potential Wildlife Linkages exist along US 60 between AZ 79 and AZ 77 and along US 191 between AZ 366 and I-10</li> <li>Species and Habitat Conservation Guide indicates sensitive habitats along the corridor except a portion of US 70 which bisects the San Carlos Reservation</li> <li>Species of Greatest Conservation need are identified along the corridor except a portion of US 70 which bisects the San Carlos Reservation</li> <li>A moderate level of Species of Economic and Recreational Importance are identified along the corridor except a portion of US 70 which bisects the San Carlos Reservation</li> </ul> <p><a href="http://azgfdportal.az.gov/wildlife/actionplan">http://azgfdportal.az.gov/wildlife/actionplan</a></p>   |
| Building and Quality Arizona (BQAZ) | 2010             | ADOT   | <p>ADOT completed the BQAZ Statewide Transportation Planning Framework Study in 2010. Its purpose was to identify Arizona's multimodal transportation needs through 2050. The recommended framework is a 40-year vision for the future, including not only multimodal transportation improvements, but also policies and programs to address climate change, urban form, environmental stewardship, economic vitality, safety and security. Network recommendations identified in the study include various new and improved roadways, rail corridors, and transit service. Recommendations affecting US 60 US 70 US 191 include:</p> <p><b>CAG: Representative Projects and Programs from Critical Needs:</b></p> <ul style="list-style-type: none"> <li>US 60 Corridor widening to 4 lanes, TI changes, bridges and passing lanes</li> <li>US 70 widening to 4 lanes, US 60 to Safford</li> </ul> <p><b>SEAGO: Representative Projects and Programs from Critical Needs:</b></p> <ul style="list-style-type: none"> <li>US 191 reconstruction to 4 lanes divided, I-10 to US 70</li> <li>US 70 widening to 4 lanes, Globe to Safford</li> </ul> <p>Implementation of the recommended network would occur through the state's Long Range Transportation Plan (LRTP) and more specific (state, regional, and local) capital improvement programming.</p> <p><a href="http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/8962">http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/8962</a></p>  |
| Eastern Arizona Framework Study     | May 2009 (Draft) | ADOT   | <p>This working paper details the effort in developing and evaluating future transportation framework scenarios for the Eastern Arizona Framework study area. A number of important elements provided the basis for scenario development, including traffic modeling, existing studies and reports, the ADOT investment strategy, the ADOT critical needs definition and public input. The modeling effort provides a benchmark to test how well current and future roadway networks are likely to perform based on growth projections. The traffic model helps identify corridors that are over capacity now or in the future. Future years, 2030 and 2050, were tested against the base network, which includes known committed projects on top of the existing roadway. The modeling effort indicates that the roadway network serving Eastern Arizona is functioning well under existing conditions. However, by 2030 and 2050 the Eastern Arizona model is showing severe and extreme congestion throughout the region.</p> <p><b>Non-Capacity Related Roadway Needs</b> affecting US 60 US 70 US 191 include:</p> <ul style="list-style-type: none"> <li>US 191 Safford District – Upgrade to an all-weather highway by installing cross drainage and raising the profile as well as bypassing Elfrida. Needed by 2025, ADOT Critical Needs Report – No specific locations given</li> <li>US 191 Safford District – Exchange ADOT's Pan American Highway (US 191B) segment to the City of Douglas for Chino Road. Needed by 2020, ADOT Critical Needs Report – No specific locations given</li> <li>US 70 Globe District – US 70 Address safety and speeding issues. US 70 Increase shoulder width, add turn lanes and passing zone improvement/striping, bus stops, truck traffic, and US 70 bridge widening improvements. Needed by N/A, ADOT Critical Needs Report – No specific locations given</li> <li>US 70 Copper Country Focus Area – US 70 Increase shoulder widths; add turn lanes, passing zone improvements, striping, and school bus stops; address truck traffic, safety and speeding issues; and construct bridge widening improvements east of IR 6. Needed by N/A, A Report on Tribal Transportation Issues and Needs – No specific locations given</li> </ul> |

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|   |                |        | <p>Scenario A, B and C represent potential transportation futures for Arizona. Scenario A (Personal Vehicle Mobility) outlined an extensive investment in improving and upgrading the roadway network as well as adding new roads. Scenario B (Transit Mobility) shifts the investment from roadways to extensive new and improved transit systems. This includes local transit as well as intercity bus systems. Scenario B includes some new investment in roadways but focused only on the most critical corridors. Scenario C (Focus Growth) includes both extensive investment in roadway improvement balanced with new investment in transit. The transit investment is focused locally in Scenario C. Additionally, Scenario C calls for substantial investment in bicycle and pedestrian facilities to further improve the local trip experience.</p> <p><b>Scenario A</b> Recommendations affecting US 60/ US 70/ US 191 include:</p> <ul style="list-style-type: none"> <li>• Widen Roadway - US 70: 4 lanes Globe to Safford</li> <li>• Widen Roadway - US 70: 4 lanes Safford east to US 191</li> <li>• Widen Roadway - US 191: 4 lanes I-10 to Safford</li> <li>• New Roadway – Safford Alternative Route US 191 to US 70</li> </ul> <p><b>Scenario B</b> Recommendations affecting US 60/ US 70/ US 191 include:</p> <ul style="list-style-type: none"> <li>• Widen Roadway - US 191: 4 lanes I-10 to US 70</li> <li>• Transit Projects – Intercity rail: Safford to Globe</li> <li>• Provide Regional Bus Service: Safford to Phoenix via Globe</li> <li>• Provide Enhanced Local transit in: Safford/Pima/Thatcher and Douglas</li> </ul> <p><b>Scenario C</b> Recommendations affecting US 60/ US 70/ US 191 include:</p> <ul style="list-style-type: none"> <li>• Widen Roadway: US 70: 4 lanes US 191 to Globe</li> <li>• Widen Roadway - US 191: 4 lanes I-10 to US 70</li> <li>• Provide Regional Bus Service: Safford to Phoenix via Globe</li> <li>• Provide Enhanced Local transit in: Safford/Pima/Thatcher and Douglas</li> <li>• Bicycle and Pedestrian Projects – Provide Complete Streets/Main Street in: Safford/Pima/Thatcher (US 70)</li> </ul> |
| FHWA Freight Analysis Framework             | 2013           | FHWA   | <p>The FHWA Freight Analysis Framework integrates data from a variety of sources to create a comprehensive picture of freight movement throughout the United States. The Framework utilized a 2012 commodity flow survey and U.S. Census Bureau trade data to detail a National Network for Conventional Combination Trucks (tractors with one semitrailer up to 48 feet in length or with one 28-foot semitrailer that are up to 102 inches wide). The northern portion of the study corridor, including portions of US 60 and US 70, are identified as part of the National Freight Network. However, no specific projects or improvement initiatives are identified.</p> <p><a href="http://ops.fhwa.dot.gov/FREIGHT/freight_analysis/nat_freight_stats/docs/13factsfigures/pdfs/fff2013.pdf">http://ops.fhwa.dot.gov/FREIGHT/freight_analysis/nat_freight_stats/docs/13factsfigures/pdfs/fff2013.pdf</a></p>  |
| MAG 2035 Regional Transportation Plan (RTP) | 2014           | MAG    | <p>The MAG 2035 RTP is a comprehensive, performance based, and coordinated regional plan, outlining multimodal transportation expenditures between FY 2016 and FY 2035 for the Phoenix metropolitan area. Projects include freeway/highway, streets, public transit, airports, bicycle and pedestrian, goods movement, and special needs transportation facilities. Planning and prioritization accounted for key transportation related activities such as transportation demand management, system management, safety, security, and air quality performance analysis. In addition, the basis for identifying options, evaluating alternatives, and making investment decisions was guided by the goals, objectives, and priority criteria of system preservation and safety, access and mobility, sustaining the environment, and accountability and planning. The plan also identified the existing half-cent sales tax (expires 2026), and federal transportation funds distributed through ADOT or directly to MAG as funding sources for the RTP.</p> <p>The western most portion of the study corridor, along US 60 between Florence and the Maricopa County line, falls within the MAG jurisdictional boundaries, but no programmed investments are identified through FY 2035.</p> <p><a href="https://www.azmag.gov/Documents/RTP_2014-01-30_Final-2035-Regional-Transportation-Plan-(RTP).pdf">https://www.azmag.gov/Documents/RTP_2014-01-30_Final-2035-Regional-Transportation-Plan-(RTP).pdf</a></p>   |

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| What Moves You Arizona? Long-Range Transportation Plan 2010-2035          | November 2011  | ADOT                | <p>The purpose of the plan is to serve as both the principal high-level capital programming guide for ADOT and as documentation of broader statewide transportation investment needs. The plan replaced MoveAZ, ADOT's previous LRTP completed in 2004. The report specifies a number of traditional and innovative funding strategies that must be pursued to meet the state's transportation needs over the next 25 years. None specifically relate to US 60/ US 70/ US 191.</p> <p>Implementation strategies were identified for Mobility, Accessibility and Connectivity; Preservation and Maintenance; Economic Development; Transportation and Land Use; Natural, Cultural and Environmental Resources; Safety and Security; and Performance Measurement and Management. The plan proposed quantitative performance measures in the following areas:</p> <ul style="list-style-type: none"> <li>• Improve Mobility and Accessibility (e.g., speed, delay, volume/capacity)</li> <li>• System Preservation and Maintenance (e.g., pavement and bridge condition metrics)</li> <li>• Support Economic Growth (e.g., number of jobs created or retained, as well as mobility measures)</li> <li>• Link Transportation and Land Use (mobility measures, level of improved access management)</li> <li>• Consider Natural, Cultural and Environmental Resources (e.g., change in vehicle emissions)</li> <li>• Enhance Safety and Security (number of crashes and fatalities by mode)</li> <li>• Strengthen Partnerships (to be measured qualitatively)</li> <li>• Promote Fiscal Stewardship (relative benefits of investment choices)</li> </ul> <p><a href="http://www.azdot.gov/docs/default-source/planning/lrtp-2011-1129.pdf?sfvrsn=2">http://www.azdot.gov/docs/default-source/planning/lrtp-2011-1129.pdf?sfvrsn=2</a></p> |
| <b>REGIONAL PLANNING STUDIES</b>  |                |                     |  |
| Arizona – Sonora Border Master Plan                                       | February 2013  | ADOT & FHWA         | <p>The Arizona-Sonora Border Master Plan is a bi-national comprehensive approach to coordinate the planning and delivery of projects to improve land POEs and the transportation infrastructure serving these ports in the Arizona-Sonora border region. The plan identified 107 multimodal infrastructure projects within the study area that were developed from findings and recommendation of previous studies and stakeholder input. There were no specific recommendations for US 60 US 70 US 191.</p> <p><a href="https://www.azdot.gov/projects/southeast/arizona-sonora-border-master-plan/documents">https://www.azdot.gov/projects/southeast/arizona-sonora-border-master-plan/documents</a></p>  |
| Bi-National Border Transportation Infrastructure – Needs Assessment Study | 2004           | FHWA & SCT (Mexico) | <p>The Binational Border Transportation Infrastructure - Needs Assessment Study was carried out by both the FHWA and the Mexican Secretaria de Comunicaciones y Transportes (SCT). The study developed a systematic approach for assessing transportation infrastructure needs along the U.S.-Mexico border region, identified 42 multimodal transportation corridors, and identified 311 significant transportation projects (258 in the U.S. and 53 in Mexico). The study did not identify any projects or priority areas along the US 60, US 70, and US 191 study corridor.</p> <p><a href="http://www.borderplanning.fhwa.dot.gov/tocBINS.asp">http://www.borderplanning.fhwa.dot.gov/tocBINS.asp</a></p>  |
| Gila County Rail Passenger Study  | 2009           | Gila County         | <p>The purpose of the Gila County Rail Passenger Study was to examine the feasibility of establishing permanent passenger rail service in the Globe-Miami area, resulting from a successful demonstration of excursion rail service between downtown Globe and the Apache Gold Casino in early 2006. The study conducted a comprehensive review of three different service areas utilizing existing track owned by the Arizona Eastern Railway.</p> <p><b>These service scenarios included:</b></p> <ul style="list-style-type: none"> <li>• Globe (downtown) to Apache Gold Casino</li> <li>• Globe (downtown) to Miami (downtown)</li> <li>• Apache Gold Casino to San Carlos</li> </ul> <p>Although the evaluated service scenarios would have no direct impact on the study corridor rights-of-way, the proposed service would roughly parallel the US 60, US 70, and US 191 study corridor between Miami and San Carlos.</p> <p><a href="http://www.gilacountyaz.gov/government/public_works/engineering/docs/SATS/Final_Gila_County_Rail_Passenger_Study.pdf">http://www.gilacountyaz.gov/government/public_works/engineering/docs/SATS/Final_Gila_County_Rail_Passenger_Study.pdf</a></p>   |

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| Graham County Transit Feasibility Study                            | July 2015<br>(Final Feasibility Working Paper) | Graham County & ADOT | <p>The working paper is an update to the 2007 Graham County Transit Study and presents key findings on whether or not public transportation services within the county is feasible. The report is the first phase of a potential two phase process. The working paper will be reviewed by the Technical Advisory Committee (TAC) and a recommendation made to local elected bodies regarding the feasibility of public transit for the county. If it is found to be feasible, votes will be taken by each elected body to determine if the study should move forward to phase two which includes developing a detailed service, financial and marketing plan.</p> <p>The 2007 Graham County Transit Feasibility Review sponsored by ADOT found that there was a need for public transportation however there was no consensus on how the local municipalities would fund the program and there was no local agency willing to take on the administrative responsibilities of a public transportation service.</p> <ul style="list-style-type: none"> <li>TAC reaffirmed that there is a need for local public transportation between Pima and Safford along US 70 and south along Highway 191 from Safford to Swift Trail Junction.</li> </ul> <p><a href="http://azdot.gov/docs/default-source/planning/gctfs-final-feasibility-working-paper-071315.pdf?sfvrsn=2">http://azdot.gov/docs/default-source/planning/gctfs-final-feasibility-working-paper-071315.pdf?sfvrsn=2</a></p>  |
| Pinal County Comprehensive Plan Update                             | November 2009<br>(Adopted)                     | Pinal County         | <p>The Pinal County Comprehensive Plan presents the County's vision for sustainable, coordinated development that meets the current and future needs of the community. Within the study area, US 60 is identified as part of both the Copper Corridor and the Hospitality/Tourism Corridor. In addition, the plan identifies a new Aviation-Based Commerce Center that will create long-term economic potential for the region through associated business and employment development opportunities.</p> <p>The plan's circulation element states that the major challenge in supporting the County's rapid growth is providing safe and efficient multimodal transportation regionally and statewide. The plan considered the results of many studies that addressed these challenges at various scales, including Pinal County's RSRSM, adopted in 2008, that calls for roads at least with regionally significance to be spaced at two-mile intervals.</p> <p>Recommendations specific to the US 60 US 70 US 191 corridor include:</p> <ul style="list-style-type: none"> <li>High Intensity Activity Center at US 60 / SR 79 Junction</li> <li>Medium Intensity Activity Center in Superior</li> <li>Proposed North-South Freeway connecting US 60 to I-10</li> <li>Williams Gateway Freeway beginning at SR 202 in Mesa, connecting to the Phoenix-Mesa Gateway Airport and continuing east to the east end of US 60</li> <li>Preserving medium capacity transit along US 60 between Apache Junction and the Gila County Line</li> <li>Superior as a possible site for a suitable array of transit centers.</li> </ul> <p><a href="http://www.pinalcountyz.gov/CommunityDevelopment/Planning/Documents/00%20Comprehensive%20Plan%202014.pdf">http://www.pinalcountyz.gov/CommunityDevelopment/Planning/Documents/00%20Comprehensive%20Plan%202014.pdf</a></p> |
| Pinal County Open Space and Trails Master Plan                     | October 2007                                   | Pinal County         | <p>The Pinal County Open Space and Trails Master Plan is the foundation of the Open Space and Recreation Element of the Pinal County Comprehensive Plan and identifies 399,300 acres of existing or planned open space, 802,400 acres of proposed open space, 25,900 acres of restricted use open space, and 168,700 acres of regional parks. The Plan reflects the vision of county residents and identifies goals and objectives for the attainments of open space, trails, and regional parks. The plan identifies US 60 as a proposed multi-use trail however, no specific plans or recommendations were made.</p> <p><a href="http://www.pinalcountyz.gov/openspacetrails/documents/final%20open%20space%20and%20trails%20master%20plan.pdf">http://www.pinalcountyz.gov/openspacetrails/documents/final%20open%20space%20and%20trails%20master%20plan.pdf</a></p>  |
| Pinal County Regionally Significant Routes for Safety and Mobility | December 2008<br>(Final Report)                | Pinal County         | <p>The study developed a plan to ensure mobility and safety through a partnering approach with federal, state, county, local, Native American Communities and private stakeholders. The purpose of the plan is to provide a guide for the County and other stakeholders to implement and fund regionally significant routes. The plan is also a guide to preserve right-of-way for regionally significant routes. The process has built upon the activities carried out for the <i>2006 Small Area Transportation Study</i> that identified potential Regionally Significant Routes. The section of the corridor which bisects Pinal County is identified as a Medium Priority Corridor however, no specific recommendations were made.</p>  |

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| Pinal County Transit Feasibility Study                  | 2011                         | Pinal County                | <p>The Pinal County Transit Feasibility Study examines the County's transit demand to create a regional transit system. While the County's current transit needs are minimal, the study anticipates rapid population growth and an increased demand for a multimodal transit system. Growth assumptions in the study expect the western portion of Pinal County, Casa Grande, Apache Junction, Eloy, and Florence to grow to become regional employment centers. To the east, the County will remain mostly rural.</p> <p>Transit recommendations include additional transit centers, park and ride lots, and express, arterial bus rapid transit, regional, and circulator bus services. Transit recommendations that are in the US 60 US 70 US 191 study corridor include:</p> <p><b>Long-term improvements (2025):</b></p> <ul style="list-style-type: none"> <li>Part-time regional transit route (2 days per week) between Florence Junction (junction of US 60 and SR 79) and Superior</li> <li>Park-and-ride lot in the vicinity of Florence Junction</li> </ul> <p><a href="http://www.pinalcountyz.gov/PublicWorks/TransportationPlanning/Documents/PinalCountyTransitFeasibilityStudy.pdf">http://www.pinalcountyz.gov/PublicWorks/TransportationPlanning/Documents/PinalCountyTransitFeasibilityStudy.pdf</a></p> |
| Pinal Creek Trail Conceptual Plan                       | November 2012 (Final Report) | City of Globe & Gila County | <p>The Pinal Creek Trail corridor study was conducted in conjunction with the Cobre Valley Comprehensive Transportation Study, to provide alternative modes of transportation to key educational and recreational areas in the Globe area. The purpose of the study was to review previous trail studies and recreation trail plans addressing the most critical current and future non-motorized modes of transportation within the study area. The principal focus of this study was to develop a conceptual plan for the Pinal Creek Trail corridor; identifying viable implementation strategies to make this dream a reality. The Plan addresses safety, environmental, economic and sustainability issues specific to the Pinal Creek Trail area. The Pinal Creek Trail corridor study area consists of approximately 8.2 miles within the City of Globe and Gila County and is included in the CAG planning area. Regional access to the study area is provided by US 60 and US 70.</p> <p><b>Recommendations specific to the US 60/70/191 corridor include:</b></p> <ul style="list-style-type: none"> <li>Trail should be located along paved roadway shoulder and sidewalk system</li> <li>Construct path adjacent to north side of US 60</li> <li>Widen bridge over Pinal Creek for Pathway</li> </ul>            |
| Safford General Plan                                    | February 2004 (Adopted)      | City of Safford             | <p>The City of Safford General Plan is an update to the 1987 City of Safford Comprehensive Plan. The plan identifies a number of reconstruction plans which would affect either US 70 or US 191 and are listed below:</p> <ul style="list-style-type: none"> <li>Reconstruct 8th Avenue Bridge – An alternative location at 1st Avenue was evaluated. New alignment would provide a direct access for truck traffic from the San Juan/Dos Probres mine to US 191.</li> <li>Construct US 70 Relief Route – Provide alternate route between US 70 and US 191.</li> </ul> <p>During the public participation process key issues were identified that were critical to traffic and circulation within the City of Safford Planning Area. The following issues are related specifically to the US 70/191 Corridor.</p> <ul style="list-style-type: none"> <li>East Relation Street Extension – Extend East Relation Street to connect US 191 and US 70</li> <li>20th Street Extension – Extend 20th Street in segments to provide for through traffic between 20th avenue and US 70</li> <li>20th Avenue Extension –Extend 20th Avenue south to US 191 to provide a relief for and support development west to US 191</li> </ul>  |
| SEAGO Transportation Coordination Plan Update 2015-2016 | 2015                         | SEAGO                       | <p>The purpose of the plan is to identify the transportation needs of individuals with disabilities, older adults, and people with low incomes, provide strategies for meeting these needs, and prioritize transportation services for funding and implementation. SEAGO reviews and updates the plan on an annual basis. This Plan Update includes updated regional demographic data as well as updated information on new and existing transportation providers serving the transportation dependent and disadvantaged populations in the region. SEAGO utilizes a process that includes representatives of public, private and nonprofit transportation and human services providers, elected officials, and public participation identify transit needs/service gaps and to establish priorities in order to make informative funding decisions for specialized transportation services. This plan update will focus on the 2015-2016 State fiscal year and will be updated once again in May 2016. There were no specific recommendations for US 60 US 70 US 191.</p>   |

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| SR 80 and US 191 Oversize Load Study                    | November 2013  | ADOT       | <p>The purpose of the SR-80 and US-191 Oversize Load Study is to identify roadway conditions that restrict travel by oversize vehicles on the SR-80 and US-191 study routes. The study also recommends infrastructure and related improvements that will eliminate or mitigate restrictions to the safe and efficient flow of oversize vehicles.</p> <p><b>Study Process:</b></p> <ul style="list-style-type: none"> <li>• Locate and analyze potential restrictions along the study routes by reviewing weight, width, height, and geometric characteristics</li> <li>• Examine other regional characteristics and investment strategies for eliminating and mitigating restrictions to oversize vehicles</li> <li>• Identify projects that could improve efficiency and mobility of vehicles carrying oversize loads, as well as the general traffic on the study routes:</li> <li>• Benefit-cost analysis to evaluate the identified improvement projects</li> </ul> <p><b>Study Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Upgrade US 191 from POE to I-10 to an Oversize Vehicle Freight Corridor (OVFC)</li> <li>• Established design criteria for OVFC</li> <li>• Six improvement projects (3 projects affecting US 191): <ul style="list-style-type: none"> <li>• Reconstruct Westbound Ramps I-10/US-191 Interchange (Exit 331) Phase 1 (Complete)</li> <li>• Reconstruct US-191/UPRR Overpass, (ADOT Structure No. 157) (Complete)</li> <li>• US 191 Shoulder Widening, existing 2-ft to a new 8-ft (Partially Complete)</li> </ul> </li> </ul>  |
| PARA STUDIES  |                |            |   |
| Cobre Valley Comprehensive Transportation Study (CVCTS) | 2013           | ADOT & CAG | <p>This study was a joint effort by the City of Globe, Town of Miami, ADOT and CAG to identify long-range improvements needed in the Cobre Valley. The Cobre Valley encompasses approximately 160 square miles in Gila County, which is noted as an important mining center. The study included an assessment of the existing and future transportation conditions and prioritization of needed improvements for short-, mid- and long- term timeframes.</p> <p>Short-term improvements were recommended to be completed by 2015. These improvements included a speed study on US 60 (Miami to SR 77), an intersection evaluation at US 70 and SR77, and an access management study on US 60 (Ragus Road to Old Oak Street). Fourteen other recommendations were made to be implemented by Miami, Globe, Gila County and CAG.</p> <p>Mid-term improvements were recommended to be completed by 2020. These improvements included 8 construction projects on US 60 (striping, sidewalk, bridge, and intersection work) and 3 construction projects on US 70 (bridge and widening work). Thirty-six recommendations were made in total.</p> <p>Long-term improvements were recommended to be completed by 2030. Among the 17 recommendations for multiple agencies, the study recommended an alternative alignment for US 60, as being developed in an ADOT DCR underway at the time. An access management plan for US 60 through Miami and intersection realignment for US 60 and Bluebird Mine Entrance were also noted.</p> <p><b>Study-wide issues documented included:</b></p> <ul style="list-style-type: none"> <li>• Need for alternative route</li> <li>• Limited emergency access</li> <li>• Pavement management system</li> <li>• Inadequate bike and pedestrian facilities</li> <li>• Inadequate street lighting</li> <li>• Drainage issues</li> </ul> <p><a href="http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/20110">http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/20110</a></p> |

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| City of Douglas Small Area Transportation Study | 2007                        | Douglas     | <p>The purpose of this study was to provide a multimodal transportation plan that supports future growth in the Douglas area and enhances cross-border commercial traffic. The existing conditions were assessed and improvements were recommended for year 2030. No specific recommendations were made for US 191 or the Douglas POE. The US Port of Entry Feasibility Study (2007) is referenced for improvements related to the POE.</p> <p><a href="http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/16622">http://azmemory.azlibrary.gov/cdm/ref/collection/statepubs/id/16622</a></p>  |
| Gila County Small Area Transportation Study     | October 2006 (Final Report) | Gila County | <p>The purpose of the study has been to develop a 20-year transportation plan and implementation program to guide Gila County in meeting transportation needs into the future. Roadway and multimodal improvements were identified to address deficiencies and needs to improve mobility and safety in the County. This long-range multimodal transportation plan is intended for use in day-to-day programming and funding of transportation improvements. In addition, transportation improvements have been prioritized to maximize project benefits within budget limitations.</p> <p><b>Existing Corridor Condition Observations:</b></p> <ul style="list-style-type: none"> <li>• Highway-rail crossings in the Globe-Miami area appear to be in need of reconstruction. However, due to low volume of train and vehicle traffic, few incidents have occurred.</li> <li>• Intercity transit services provided by Greyhound Lines along the US 60/US 70 corridor through Globe-Miami and by White Mountain Passenger Lines along the US 60 corridor have ceased. No alternative transportation is provided.</li> <li>• Unmet needs for additional local transit service may exist in the Globe-Miami area.</li> <li>• The potential may exist for excursion rail service in the Globe-Miami area.</li> </ul> <p><b>Transportation Improvement Plan Project List:</b></p> <ul style="list-style-type: none"> <li>• US 60 – US 70: Regional Bus Service Study</li> </ul> |
| Gila County Transportation Study                | January 2014 (Final Report) | Gila County | <p>The principal purpose of the Gila County Transportation Study is to identify the most critical transportation infrastructure needs within Gila County and recommend a program of improvement projects to address these needs. Transportation needs were grouped into the following elements: roadway, safety, pavement management, bicycle and pedestrian facilities, and transportation finance. The study area for the Gila County Transportation Study is all transportation facilities within Gila County that are owned or maintained by Gila County. This excludes transportation facilities owned and maintained by Gila County's incorporated communities and Indian reservations, as well as the state highways owned and maintained by ADOT, although it does include the connecting points between these facilities and those facilities owned or maintained by Gila County.</p> <p>While the study did identify a number of improvements for streets along US 60 and US 70, no specific recommendations extended onto the corridor.</p> <p><a href="http://www.gilacountyaz.gov/documents/docs/DepartmentFiles/PublicWorks/Roads/Gila_County_Transportation_Study_Final_Report_01_30_14.pdf">http://www.gilacountyaz.gov/documents/docs/DepartmentFiles/PublicWorks/Roads/Gila_County_Transportation_Study_Final_Report_01_30_14.pdf</a></p>   |
| Graham County Alternate Route Study             | November 2010               | ADOT        | <p>Graham County is serviced by two major ADOT facilities - US 70 and US 191. The junction of US 70 and US 191 is located in the heart of the Pima, Safford and Thatcher communities and these routes serve as major arterials for local travelers. The current and short term traffic issues for US 191 and US 70 within Safford and Thatcher can be addressed by the ongoing US 191 DCR study and currently programmed US 70 improvements, all expected to reach capacity by 2025, at which time the preferred corridor should be implemented.</p> <p><b>Study Process:</b></p> <ul style="list-style-type: none"> <li>• Preliminary assessment for the development of an alternate route through the Thatcher/Safford/Pima area</li> <li>• 6 alternatives resulted from a GIS resistance model of the region</li> <li>• Selection of preferred corridor by evaluation criteria such as LOS, safety and cost</li> </ul> <p><b>Study Recommendations:</b></p> <ul style="list-style-type: none"> <li>• Alternate B preferred corridor with controlled access policies</li> <li>• Turn back to local cities/agencies</li> <li>• DCR and EA for Alternative B</li> </ul>   |

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| Graham County/<br>Safford/ Thatcher/<br>Pima Small Area<br>Transportation Study | July 2009<br>(Final Report) | Graham<br>County/<br>Safford/<br>Thatcher/ Pima               | <p>The Graham County, Safford, Thatcher, Pima Small Area Transportation Study was initiated by Graham County, in conjunction with the Arizona Department of Transportation (ADOT), to develop a countywide, long-range multimodal transportation plan for this growing rural Arizona community. The study area boundary for the Graham County SATS are: San Carlos Indian Reservation border to the west; eastern US 191/US 70 junction to the east; SR 266/US 70 junction to the south and San Carlos Indian Reservation border to the north.</p> <p><b>Short-Term Recommended Improvement Projects 2008-2013:</b></p> <ul style="list-style-type: none"> <li>US 191: Between 11<sup>th</sup> Street and US 70 (MP 120-121) – Restripe to 5 lanes</li> <li>US 191: Between Armory Road and Swift Trail (MP 113.6-118) – Widen to 4 lane highway</li> <li>US 191: Between Swift Trail and Artesia Road (MP 110.9-113.6) – Widen to 4 lane highway</li> <li>US 191: Armory Road (MP 118) – Intersection Improvement</li> <li>US 191: Discovery park Boulevard (MP 119) – Intersection Improvement</li> <li>US 191: SR 366/Swift Trail (MP 114) – Intersection Improvement</li> <li>US 70: 14<sup>th</sup> Avenue (MP 339) – Intersection Improvement</li> <li>US 70: Church Street (MP 337) – Intersection Improvement</li> <li>US 70: College Avenue (MP 335.8) – Intersection Improvement</li> <li>US 70: Stadium Avenue (MP 335.7) – Intersection Improvement</li> <li>US 70: Reay Lane (MP 335.5) – Traffic signal or roundabout</li> <li>US 70: 8<sup>th</sup> Avenue (MP 335.6) – Intersection Improvement</li> </ul> <p><b>Mid-Term Recommended Improvement Projects 2013-2018:</b></p> <ul style="list-style-type: none"> <li>US 70: Bryce-Eden Road (MP 312.25) – Add center turn lane</li> </ul> <p><b>Long-Term Recommended Improvement Projects 2018-2023:</b></p> <ul style="list-style-type: none"> <li>US 191: Lebanon Road to Artesia Road (MP 110.9-116) – Restripe to 5 lanes</li> <li>US 191: Discovery Park and 20<sup>th</sup> Street – Find alternative Route</li> <li>US 191: Discovery Park and Armory Road – Find alternative Route</li> <li>US 191: US 70 to 8<sup>th</sup> Street – Extend north</li> </ul> |
| San Carlos Apache<br>Tribe Transit Feasibility<br>Study                         | August 2011<br>(Final)      | San Carlos<br>Apache Nnee<br>Bich'o Nii<br>Services &<br>ADOT | <p>In October 2009, the San Carlos Apache Tribe completed an update to their Long-Range Transportation Plan. One of the recommendations from the LRTP was for the Tribe to conduct an extensive transit feasibility study to evaluate the existing services and identify improvement opportunities. The San Carlos Apache Transit Services applied for, and received Planning Assistance for Rural Areas program funding from the Arizona Department of Transportation Multimodal Planning Division to conduct the Transit Feasibility Study. The study consists of two separate phases: The first phase focuses on the feasibility of expanding and enhancing the San Carlos Apache Transit Services operation, and the second phase is the development of a five-year plan for implementing the recommended enhancements and service expansion. There were no specific recommendations for this corridor.</p> <p><a href="http://repository.asu.edu/attachments/112261/content/San%20Carlos%20Apache%20Tribe%20Transit%20Feasibility%20Study.pdf">http://repository.asu.edu/attachments/112261/content/San%20Carlos%20Apache%20Tribe%20Transit%20Feasibility%20Study.pdf</a></p>  |
| <b>DESIGN CONCEPT REPORTS and PROJECT ASSESSMENTS</b>                           |                             |   |   |
| US 60 Florence Jct –<br>Superior<br>FDCR and EA                                 | March 2004                  | ADOT  | <p>The purpose of the study is to develop a long-range plan that will guide future decisions regarding the ultimate improvements required to improve US 60 to meet the capacity, operational, and safety needs of the motoring public through the year 2025. The study recommended widening US 60 to 4 lanes (divided) to Superior, and a 5-lane urban section within the city limits of Superior. Locating improvements along the existing alignment and reuse of the existing roadbed were top priorities.</p> <p><b>Study Process:</b></p> <ul style="list-style-type: none"> <li>Design Concept alternatives for six corridor segments based on traffic and accident data analysis, an AASHTO Controlling Design Criteria report, and location analysis</li> <li>Selection of a preferred alternative, including a consistent access management plan through the corridor, utilized criteria such as alignment, change</li> </ul>   |

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|   |                |        | <p>of access, constructability/maintenance of traffic during construction, earthwork, and cost</p> <ul style="list-style-type: none"> <li>Corridor implementation plan for the six proposed project segments</li> </ul> <p><b>Study Recommendations:</b></p> <ul style="list-style-type: none"> <li>Gonzales Pass - Construct 2 new EB lanes west of the summit, construct 2 new WB lanes east of the summit</li> <li>Queen Valley - Construct 2 new EB lanes parallel to existing, completing the divided highway between Florence Jct and Gonzales Pass</li> <li>Picket Post - Construct 2 new EB lanes parallel to existing, between Reymert Wash and Queen Creek</li> <li>Silver King - Construct new EB &amp; WB bypass (2 lanes each direction) north of the Arboretum, between Queen Creek and Silver King bridge crossings</li> <li>Town of Superior Improvements - symmetric widening of the existing 3-lane to a 5-lane, curbed section</li> <li>Queen Valley TI - Construct full access controlled, grade-separated interchange over Queen Valley Rd and the Arizona Magma RR</li> </ul>   |
| US 60 Superior – Globe Feasibility Study          | October 2004   | ADOT   | <p>The report presents the results of an investigation of alternatives for improving US 60 between the Town of Superior and the intersection of US 60/US 70 located in the City of Globe. The purpose of the Feasibility Study is to develop and evaluate alternatives for realignment and/or improvement of US 60 between Superior and Globe in order to enhance safety and traffic operational characteristics of the roadway and to meet future traffic demands. This Feasibility Study presents various alternatives for meeting these objectives, compares the differences between the proposed improvements of each alternative, and recommends those to be retained for further detailed study.</p> <p>The potential loss of business and the increased noise through residential areas were concerns expressed by both the public and agency representatives. The towns in the study area are pass-through routes, not destinations. The businesses are dependent on through traffic stopping. The study recommended widening to 4 lanes, divided, with interim improvements such as access control and increased signalization at high demand intersections.</p> <p><b>Study Process:</b></p> <ul style="list-style-type: none"> <li>Design Concept alternatives for five corridor segments based on traffic and accident data analysis, an AASHTO Controlling Design Criteria report, and location analysis</li> <li>Selection of a preferred alternative, including a consistent access management plan through the corridor, utilized criteria such as alignment, change of access, constructability/maintenance of traffic during construction, earthwork and cost</li> <li>Corridor implementation plan for the six proposed project segments</li> </ul> <p><b>Study Recommendations:</b></p> <ul style="list-style-type: none"> <li>Further study with a Design Concept Report for the 10 selected alternatives</li> </ul> |
| US 60 Superior – Globe Scoping (MP 222 – 258)     | December 2009  | ADOT   | <p>A study to develop and evaluate alternative concepts for improvement and/or realignment of US 60 from west of the Town of Superior at approximately MP 222.6 to east of the City of Globe at approximately MP 258.0. This report summarizes the public and agency scoping meetings, comments received during the scoping process, and issues that require further consideration in the development of alternatives and the environmental impact statement (EIS).</p>   |
| US 70 Bylas Road Safety Assessment, MP 294 to 298 | September 2009 | ADOT   | <p>This Road Safety Assessment (RSA) of US 70 from milepost 294 to 298 in Bylas was requested by the ADOT Safford District because the San Carlos Apache Tribe is updating its Long Range Transportation Plan and wanted to address traffic safety, especially pedestrian safety. A Road Safety Assessment is a formal examination of user safety of a future or existing roadway by an independent, multi-disciplinary assessment team which includes experienced and knowledgeable members. The compiled recommendations are based upon daytime and nighttime site reviews, background and technical information provided during the Start-up Meeting and Preliminary Findings Presentation, as well as an evaluation of recent crash data</p> <p><b>Safety Issue Countermeasures for Consideration:</b></p> <ul style="list-style-type: none"> <li>Curb installation on north side of US 70 to define and limit access points from the Mt. Turnbull Market Area to Bylas Rest Area</li> <li>Consider closing/narrowing Market entrance, or make entrance only</li> <li>Realign intersection of Centerpoint Entrance and Market driveway</li> <li>Evaluate appropriateness of current 50 mph speed limit</li> </ul>   |

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|   |                |        | <ul style="list-style-type: none"> <li>• Install additional pedestrian crossing warning signs, with flashing lights, for both eastbound and westbound directions, particularly in the Market/Post Office and Health Center areas</li> <li>• Consider eliminating the passing zones through Bylas (located at mileposts 294.6 to 295.5 and 296.5 to 297.6)</li> <li>• Consider installing ADA-compliant pedestrian gates, and/or provide some type of transit service (golf cart, van) to assist the disabled and elderly in crossing US 70</li> <li>• Repair malfunctioning street lights: 4 consecutive lights just west of the rest area, 3 lights between mileposts 294 and 295, and 1 light between mileposts 296 and 297</li> <li>• Install street name signs for all side street intersections along US 70</li> <li>• Install left-turn lanes on US 70 at major intersections; if right-turn lanes are installed, they should be offset from the adjacent through lanes</li> <li>• Long term, a continuous two-way left-turn lane should be considered for US 70, particularly from the Health Center to the Mt. Turnbull Market</li> </ul> <a href="http://www.aztribaltransportation.org/SCA/PDF/RSA_US70.pdf">http://www.aztribaltransportation.org/SCA/PDF/RSA_US70.pdf</a> |
| US 70 Segment 1 Pima – Thatcher FDCR                        | April 2000     | ADOT   | The report focuses on the evaluation of widening the 5.2 mile Pima-Thatcher segment from just east of Cottonwood Wash to Reay Lane. The proposed improvements consist of providing four through lanes, a two-way left turn lane, curb and gutter with sidewalk replacement in urban areas, and shoulders in rural areas. Seven typical sections and ten design alternatives were evaluated on factors such as ADA facilities, cost effectiveness, improvements to existing drainage, and accommodating farm equipment. Preliminary design plans were developed for the preferred alternative.   |
| US 70 Segment 2 Thatcher – Safford FDCR                     | October 1998   | ADOT   | The report focuses on the evaluation of widening the 1.9 mile Thatcher-Safford segment from just west of Second Ave to just east of 14th Ave. The study evaluates alternatives for modifying US 70 to provide a five-lane urban section consisting of four through lanes, a two-way left turn lane, and curb and gutter. Primary project issues were the development of alternatives involving extensive drainage improvements while minimizing the potential for impacts to farmland, irrigation facilities, biological resources, historic and cultural resource sites, and the need for additional right-of-way. Six typical sections and six design alternatives were considered for the study area. Alternatives were evaluated on factors such as cost, utility impacts, and earthwork. Preliminary plans and details were developed for the preferred alternative.   |
| US 191 Douglas to I-10 FDCR                                 | September 1997 | ADOT   | <p>A study providing engineering analysis for future roadway improvements that are cost effective solutions to the corridor issues. The ultimate objective is to provide a roadway which will allow safe passage during a hydraulic event.</p> <p><b>Types of projects recommended include:</b></p> <ul style="list-style-type: none"> <li>• Pavement preservation</li> <li>• Low flow crossing culvert installation</li> <li>• Intersection improvements</li> <li>• Roadway reconstruction and drainage improvements</li> </ul>  |
| US 191 I-10 to SR 266 FDCR                                  | December 2002  | ADOT   | The purpose of the report is to determine a scope of work and cost estimate within the proposed limits. The DCR recommends a preferred alternative for roadway improvements that will increase the operational efficiency and capacity of US 191. Construction segments are delineated and a proposed phasing plan has been established. Five alternatives were evaluated on factors such as LOS, cost, utility impacts, right-of-way requirements and earthwork. The preferred alternative will construct a four-lane divided highway from MP 87.90 to MP 104.46, utilizing the existing roadway for portions of either the new NB or SB roadway.  |
| US 191, Jct SR 266 to US 70 Final Corridor Selection Report | September 2013 | ADOT   | This report presents the results of an investigation for improving US 191 from ¼-mile south of SR 266 (MP 104.12) to US 70 (MP 121.04) and US 70 from east of Pima (MP 332.00) to ¼-mile east of the junction (Jct) of US 191 North (MP 349.70). The purpose of this CSR is to develop and evaluate corridor alternatives for improvements of US 191 and US 70 in order to enhance safety and traffic operational characteristics of the roadways to meet existing and future year 2040 traffic demands. The CSR includes the previously initiated US 70 ATR Corridor, located south of Pima, Thatcher, Safford and Solomon. Multiple public information meetings were conducted to systematically inform and seek public input regarding the study development, purpose and need for improvements. The goal of the study was to provide at least one viable one-quarter mile wide alternative corridor for US 191 and US 70 for future evaluation in a DCR and NEPA document. Supportive of this study is an EO and planning level traffic study.  |

| DOCUMENT  | DATE COMPLETED | AGENCY | SUMMARY   |
|---|----------------|--------|---|
|   |                |        | The first segment of the proposed corridor would consist of US 191 from SR 266 to the US 70 ATR, with a portion of the US 70 ATR between Hoopes Avenue and US 191. Both the Stakeholder Team and Elected Officials agreed the most critical component of the corridor is a connection between 20th Ave and US 191 along the US 70 ATR.  |
| US 191 Whitewater Draw to Thompson Rd FDCR                    | December 2003  | ADOT   | The study purpose was to establish a long-range plan that would allow the corridor to meet future transportation demands and improve safety. The objectives of the proposed project are to improve the traffic operations and drainage characteristics of US 191 within the project limits. Two alternatives were developed and analyzed as part of the study. Alternative 1 proposed lateral ditches and a culvert system throughout the project and Alternative 2 proposed a combination of storm drain system within Elfrida and lateral ditches outside the business area. The recommended alternative from this study is the No Build alternative. The right-of-way impacts resulting from widening the roadway and the potential drainage impacts did not justify the project benefits. |
| US 60 Passing Lanes (Miami-Superior) Final Project Assessment | November 2001  | ADOT   | The major improvement included widening the roadway to allow for westbound passing lanes on US 60 between the Towns of Superior and Miami (MP 231.12 to 232.44 and MP 240.95 to 242.40).  |

**Table 3: Relevant Recommendations**

| Reference No. | Route  | Begin MP | End MP | Length (miles) | Recommendations   |              |               |           | Implementation |             | Environmental Documentation (Y/N) | Document   |
|---------------|--------|----------|--------|----------------|---|--------------|---------------|-----------|----------------|-------------|-----------------------------------|--|
|               |        |          |        |                | Project Description   | Preservation | Modernization | Expansion | Program Year   | Project No. |                                   |  |
| 1             | US 191 | 2        | 2      | 0              | DMS sign north and southbound                                 |              | X             |           |                |             | N                                 | Arizona Statewide DMS Plan   |
| 2             | US 191 | 7        | N/A    | N/A            | Bisbee Douglas International Airport improvements             | X            |               |           | FY 2017-2019   |             | N                                 | ADOT Five Year Program   |
| 3             | US 191 | 67.5     | 67.5   | 0              | Reconstruct interchange with I-10                             |              | X             |           |                |             | N                                 | Arizona Key Commerce Corridors   |
| 4             | US 191 | 87       | 121    | 34             | Reconstruct to 4 lane divided highway I-10 to US 70           |              |               | X         |                |             | N                                 | BQAZ Eastern Arizona Framework Study   |
| 5             | US 191 | 90       | 90     | 0              | DMS sign southbound   |              | X             |           |                |             | N                                 | Arizona Statewide DMS Plan   |
| 6             | US 191 | 104      | 121    | 17             | Alternate Route   |              |               | X         |                |             | N                                 | Graham County SATS/US 191 Alternative Route Study/US 191 Jct. SR 266 to US 70 Corridor Selection |
| 7             | US 191 | 104.6    | 121    | 16.4           | Local public transit service                                  |              | X             |           |                |             | N                                 | Graham County SATS   |
| 8             | US 191 | 110.9    | 116    | 5.1            | Restripe to 5 lanes between Artesia Road and Lebanon Road     |              |               | X         | 2018-2023      |             | N                                 | Graham County SATS   |
| 9             | US 191 | 110.9    | 118    | 4.4            | Widen to 4 lanes between Artesia Road and Armory Road         |              |               | X         | 2008-2013      |             | N                                 | Graham County SATS   |
| 10            | US 191 | 114      | 114    | 0              | SR 366 and Swift Trail Road Intersection Improvement          |              | X             |           | 2008-2013      |             | N                                 | Graham County SATS   |
| 11            | US 191 | 114      | 118    | 4              | Pavement preservation   | X            |               |           | 2016           |             | N                                 | ADOT Five Year Program   |
| 12            | US 191 | 116      | 116    | 0              | DMS sign northbound   |              | X             |           |                |             | N                                 | Arizona Statewide DMS Plan   |
| 13            | US 191 | 118      | 118    | 0              | Armory Road Intersection Improvement                          |              | X             |           | 2008-2013      |             | N                                 | Graham County SATS   |
| 14            | US 191 | 119      | 119    | 0              | Discovery Park Boulevard Intersection Improvement             |              | X             |           | 2008-2013      |             | N                                 | Graham County SATS   |
| 15            | US 191 | 120      | 121    | 1              | Restripe to 5 lanes between 11 <sup>th</sup> Street and US 70 |              |               | X         | 2008-2013      |             | N                                 | Graham County SATS   |
| 16            | US 191 | 121      | N/A    | N/A            | Extend Highway North US 70 to 8 <sup>th</sup> Street          |              |               | X         | 2018-2023      |             | N                                 | Graham County SATS   |

| Reference No. | Route  | Begin MP | End MP | Length (miles) | Recommendations   |              |               |           | Implementation |                       | Environmental Documentation (Y/N) | Document   |
|---------------|--------|----------|--------|----------------|---|--------------|---------------|-----------|----------------|-----------------------|-----------------------------------|--|
|               |        |          |        |                | Project Description                                     | Preservation | Modernization | Expansion | Program Year   | Project No.           |                                   |  |
| 17            | US 191 | 121      | N/A    | N/A            | Safford Regional Airport improvements                   | X            | X             | X         | FY 2016 - 2020 |                       | N                                 | ADOT Five Year Program   |
| 18            | US 70  | 339      | 339    | 0              | Intersection Improvement                                |              | X             |           | 2008-2013      |                       | N                                 | Graham County SATS   |
| 19            | US 70  | 339      | 338    | 1              | Safety /Intersection Improvements                       |              | X             |           | 2018           |                       | N                                 | ADOT Five Year Program   |
| 20            | US 70  | 339      | 328    | 11             | Provide enhanced local transit in Safford/Pima/Thatcher |              |               | X         |                |                       | N                                 | Eastern Arizona Framework Study<br>Graham County Transit Feasibility Study |
| 21            | US 70  | 339      | 328    | 11             | Provide Complete Streets in Safford/Pima/Thatcher       |              | X             |           |                |                       | N                                 | Eastern Arizona Framework Study  |
| 22            | US 70  | 339      | 253    | 86             | Widen roadway to 4 lanes between US 191 and Globe       |              |               | X         |                |                       | N                                 | Eastern Arizona Framework Study/BQAZ                                       |
| 23            | US 70  | 337      | 337    | 0              | Intersection Improvement                                |              | X             |           | 2008-2013      |                       | N                                 | Graham County SATS   |
| 24            | US 70  | 335.8    | 335.8  | 0              | Intersection Improvement                                |              | X             |           | 2008-2013      |                       | N                                 | Graham County SATS   |
| 25            | US 70  | 335.7    | 335.7  | 0              | Intersection Improvement                                |              | X             |           | 2008-2013      |                       | N                                 | Graham County SATS   |
| 26            | US 70  | 335.6    | 335.6  | 0              | Intersection Improvement                                |              | X             |           | 2008-2013      |                       | N                                 | Graham County SATS   |
| 27            | US 70  | 335.5    | 335.5  | 0              | Traffic signal or roundabout                            |              | X             |           | 2008-2013      |                       | N                                 | Graham County SATS   |
| 28            | US 70  | 330      | 329    | 1              | Construct Pedestrian Bridge Extension                   |              | X             |           | 2017           | H8397 01C             | N                                 | ADOT Five Year Program   |
| 29            | US 70  | 312.25   | 312.25 | 0              | Add Center Turn Lane Bryce-Eden Road                    |              |               | X         |                |                       | N                                 | Graham County SATS   |
| 30            | US 70  | 300      | 299    | 1              | Bridge Replacement and Rehabilitation                   | X            |               |           | 2016           | H8547 01C             | N                                 | ADOT Five Year Program   |
| 31            | US 70  | 300      | 291    | 9              | Pathway, entry monument and intersection improvements   |              | X             |           | 2016           | H8031 01C / H7637 01C | N                                 | ADOT Five Year Program   |
| 32            | US 70  | 298      | 294    | 4              | Construct continuous two-way left turn lane             |              |               | X         |                |                       | N                                 | Road Safety Assessment US 70   |
| 33            | US 70  | 298      | 294    | 4              | Install street name signs for all intersections         |              | X             |           |                |                       | N                                 | Road Safety Assessment US 70   |
| 34            | US 70  | 298      | 294    | 4              | Evaluate 50 MPH speed limit                             |              | X             |           |                |                       | N                                 | Road Safety Assessment US 70   |

| Reference No. | Route | Begin MP | End MP | Length (miles) | Recommendations   |              |               |           | Implementation |             | Environmental Documentation (Y/N) | Document  |
|---------------|-------|----------|--------|----------------|---|--------------|---------------|-----------|----------------|-------------|-----------------------------------|---|
|               |       |          |        |                | Project Description   | Preservation | Modernization | Expansion | Program Year   | Project No. |                                   |   |
| 35            | US 70 | 298      | 294    | 4              | Pedestrian Safety improvements – Pedestrian crossings, warning signs/flashings lights, ADA compliant pedestrian gates |              | X             |           |                |             | N                                 | Road Safety Assessment US 70                        |
| 36            | US 70 | 297.7    | 296.5  | 1.1            | Eliminate passing zone through Bylas  |              | X             |           |                |             | N                                 | Road Safety Assessment US 70                        |
| 37            | US 70 | 297      | 294    | 3              | Repair 4 street lights west of rest area, 3 lights between MP 294 and 295 and 1 between MP 267 and 297                |              | X             |           |                |             | N                                 | Road Safety Assessment US 70                        |
| 38            | US 70 | 296.5    | 296.5  | 0              | Curb installation on north side of US 70  |              | X             |           |                |             | N                                 | Road Safety Assessment US 70                        |
| 39            | US 70 | 296.5    | 296.5  | 0              | Realign intersection  |              | X             |           |                |             | N                                 | Road Safety Assessment US 70                        |
| 40            | US 70 | 295.5    | 294.6  | 0.9            | Eliminate passing zone through Bylas  |              | X             |           |                |             | N                                 | Road Safety Assessment US 70                        |
| 41            | US 70 | 288      | 282    | 6              | Tier 2 priority westbound climbing lane   |              | X             |           |                |             | N                                 | ADOT Climbing and Passing Lane Prioritization Study |
| 42            | US 70 | 288      | 281    | 7              | Tier 2 priority westbound passing lane  |              | X             |           |                |             | N                                 | ADOT Climbing and Passing Lane Prioritization Study |
| 43            | US 70 | 271      | 269    | 2              | Construct passing lanes   |              | X             |           | 2018           |             | N                                 | ADOT Five Year Program                              |
| 44            | US 70 | 271      | 251    | 20             | Passenger rail service along Arizona Eastern Railway from Globe to San Carlos   |              |               | X         |                |             | N                                 | Gila County Rail Passenger Study                    |
| 45            | US 70 | 270      | 267    | 3              | Tier 2 priority east and westbound passing lane   |              | X             |           |                |             | N                                 | ADOT Climbing and Passing Lane Prioritization Study |
| 46            | US 70 | 264      | 262    | 2              | Tier 2 priority eastbound climbing lane   |              | X             |           |                |             | N                                 | ADOT Climbing and Passing Lane Prioritization Study |
| 47            | US 70 | 259      | 259    | 0              | San Carlos Apache Airport improvements  | X            | X             | X         | FY 2016 - 2020 |             | N                                 | ADOT Five Year Program                              |
| 48            | US 70 | 254      | 254    | 0              | Intersection Study at SR 70 and SR 77   |              | X             |           | 2015           |             | N                                 | CVCTS   |
| 49            | US 70 | 254      | 235.5  | 0.5            | Widen to four-lane roadway  |              |               | X         | 2020           |             | N                                 | CVCTS   |
| 50            | US 70 | 253.75   | 253.75 | 0              | Rehabilitate Southern Pacific bridge  |              | X             |           | 2020           |             | N                                 | CVCTS   |

| Reference No. | Route | Begin MP | End MP | Length (miles) | Recommendations  |              |               |           | Implementation |             | Environmental Documentation (Y/N) | Document  |
|---------------|-------|----------|--------|----------------|--|--------------|---------------|-----------|----------------|-------------|-----------------------------------|---|
|               |       |          |        |                | Project Description  | Preservation | Modernization | Expansion | Program Year   | Project No. |                                   |   |
| 51            | US 70 | 253      | 253    | 0              | DMS sign eastbound   |              | X             |           |                |             | N                                 | Arizona Statewide DMS Plan                        |
| 52            | US 60 | 252      | 243    | 9              | Speed Limit Study  |              | X             |           | 2015           |             | N                                 | CVCTS   |
| 53            | US 60 | 252      | 243    | 9              | Construct new sidewalks on north side                                    |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 54            | US 60 | 252      | 212    | 40             | Construct alternative alignment/Widen to 4 lanes                         |              |               | X         | 2030           |             | N                                 | CVCTS/BQAZ  |
| 55            | US 60 | 252      | 227    | 25             | Priority Paved Shoulder Opportunity                                      |              | X             |           |                |             | N                                 | ADOT Statewide Bicycle and Pedestrian Plan Update |
| 56            | US 60 | 251      | 246    | 5              | Passenger rail service along Arizona Eastern Railway from Miami to Globe |              |               | X         |                |             | N                                 | Gila County Rail Passenger Study                  |
| 57            | US 60 | 250.75   | 250.75 | 0              | Replace Maple Street bridge  |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 58            | US 60 | 249.9    | 249.9  | 0              | Rehabilitate Pinal Creek bridge  |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 59            | US 60 | 247      | 246.5  | 0.5            | Access Management Study  |              | X             |           | 2015           |             | N                                 | CVCTS   |
| 60            | US 60 | 247      | 247    | 0              | DMS Sign Eastbound   |              | X             |           |                |             | N                                 | Arizona Statewide DMS Plan                        |
| 61            | US 60 | 245.5    | 243    | 2.5            | Implement access management through Miami                                |              | X             |           | 2030           |             | N                                 | CVCTS   |
| 62            | US 60 | 244.6    | 244.6  | 0              | Intersection improvements at Latham Boulevard                            |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 63            | US 60 | 244.5    | 244.5  | 0              | Add exclusive turn lanes on US 60  |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 64            | US 60 | 244.25   | 244    | 0.25           | Restripe to a five-lane section  |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 65            | US 60 | 243.75   | 243.75 | 0              | Rehabilitate Bloody Tanks Wash bridge                                    |              | X             |           | 2020           |             | N                                 | CVCTS   |
| 66            | US 60 | 242      | 242    | 0              | Re-align intersection  |              | X             |           | 2030           |             | N                                 | CVCTS   |
| 67            | US 60 | 242      | 227    | 15             | East and Westbound Shoulder Improvement                                  |              | X             |           |                |             | N                                 | Statewide Shoulders Study                         |

| Reference No. | Route | Begin MP | End MP | Length (miles) | Recommendations  |              |               |           | Implementation |             | Environmental Documentation (Y/N) | Document                                 |
|---------------|-------|----------|--------|----------------|--|--------------|---------------|-----------|----------------|-------------|-----------------------------------|--|
|               |       |          |        |                | Project Description  | Preservation | Modernization | Expansion | Program Year   | Project No. |                                   |  |
| 68            | US 60 | 226      | 213    | 13             | Regional part-time bus service between Florence Junction and Superior; park-and-ride in the vicinity of Florence Junction    |              |               | X         |                |             | N                                 | Pinal County Transit Feasibility Study   |
| 69            | US 60 | 222.3    | 219.9  | 2.4            | Picket Post- Construct new EB lanes parallel to existing, between Reymert Wash and Queen Creek                               |              |               | X         |                |             | Y                                 | US 60 Florence Jct – Superior DCR and EA |
| 70            | US 60 | 219.9    | 216.3  | 3.6            | Gonzales Pass- Construct new EB lanes west of the summit, construct new WB lanes east of the summit                          |              |               | X         |                |             | Y                                 | US 60 Florence Jct – Superior DCR and EA |
| 71            | 60    | 215      | 214    | 1              | Queen Valley TI- Construct full access controlled, grade-separated interchange over Queen Valley Rd and the Arizona Magma RR |              |               | X         |                |             | Y                                 | US 60 Florence Jct – Superior DCR and EA |
| -             | 60    | N/A      | N/A    | 0              | Bridge Infrastructure Improvements East of SR 177  | X            |               |           |                |             | N                                 | Arizona Key Commerce Corridor            |
| -             | 60    | N/A      | N/A    | 0              | Bridge Infrastructure Improvements between SR 177 and SR 77  | X            |               |           |                |             | N                                 | Arizona Key Commerce Corridor            |
| -             | 60    | N/A      | N/A    | 0              | Bridge Infrastructure Improvements at Globe  | X            |               |           |                |             | N                                 | Arizona Key Commerce Corridor            |

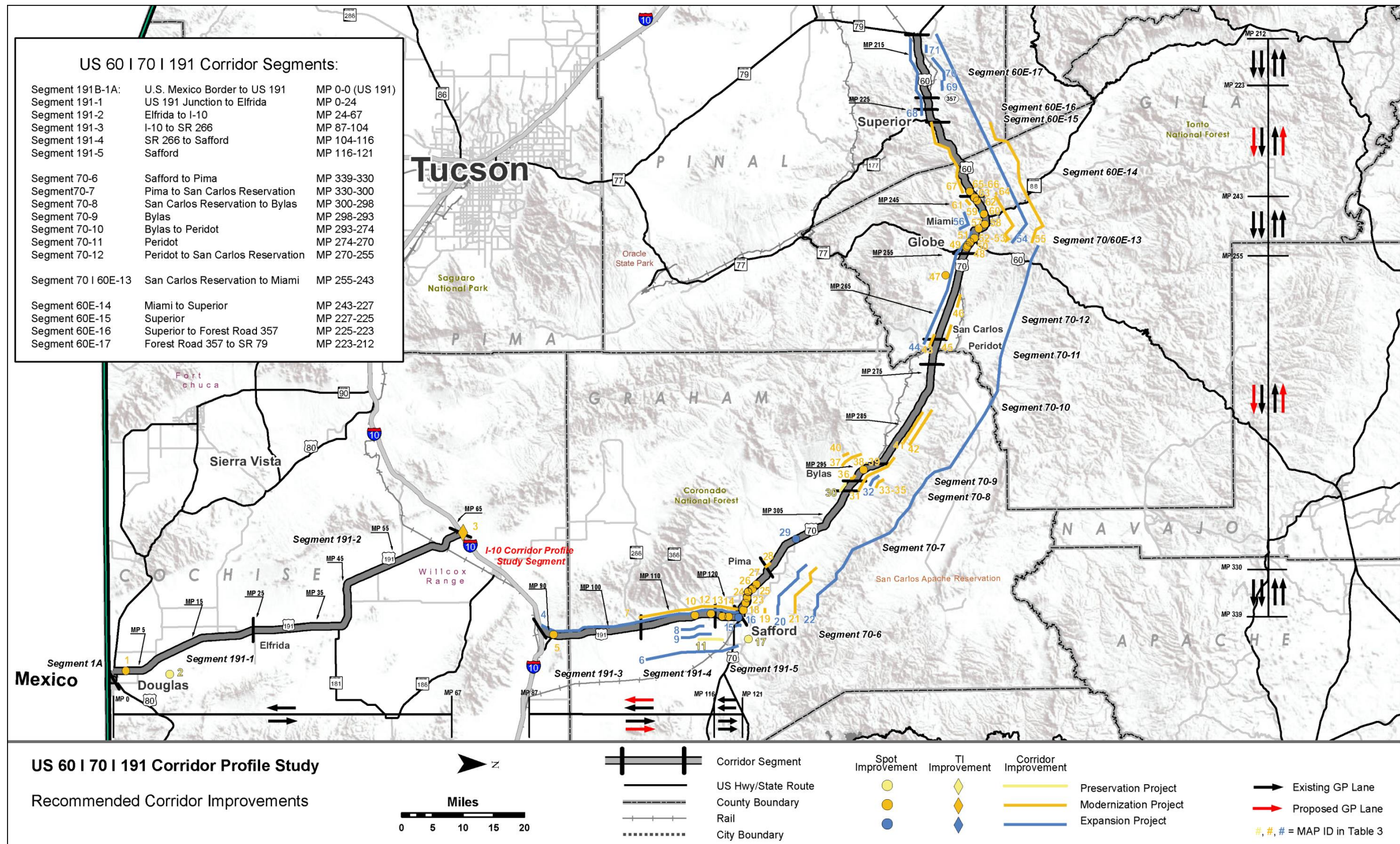
**Table 4: Projects Constructed on US 60|US 70|US 191 Corridor Since 2010**

| Federal Project No. | TRACS Number | Begin Milepost | End Milepost | Date Completed | Description  | Type          |
|---------------------|--------------|----------------|--------------|----------------|--|---------------|
| <b>US 191</b>       |              |                |              |                |  |               |
| 191-B-(201)A        | H818501C     | 100            | 104.5        | May 2013       | The project is located in Graham County on US 191 from Stockton Wash to SR 266. The work consists of the construction of two new northbound lanes of the existing roadway with asphaltic concrete and asphalt rubber friction course and other related work. | Expansion     |
| ARRA-191B(001)A     | H574401C     | 118            | 120.32       | May 2010       | US 191 Safford Sidewalks to Discovery Park   | Modernization |
| <b>US 70</b>        |              |                |              |                |  |               |
| 070-A-(205)A        | HX23101C     | 335            | 335.6        | May 2012       | The project is located in Graham County on US 70 at the intersection of Reay Lane within the Town of Thatcher. The work consists of installing a new traffic signal, sidewalk ramps, and related items.  | Modernization |
| <b>US 60</b>        |              |                |              |                |  |               |
| 060-D-(211)T        | H581801C     | 229            | 242.4        |                | The project is located in Pinal and Gila County within the Tonto National Forest on US 60 east of Superior between Oak Flat and Miami. The work includes constructing a passing lane, shoulder widening, bridge repairs and related items.                   | Modernization |
| HSIP-060D(210)A     | H836901C     | 251            | 251.2        | July 2012      | The project is located in Gila County in the City of Globe on US 60 at the intersection of High Street. The proposed work consists of installing a Pedestrian Hybrid Crossing Beacon, sidewalk, sidewalk ramps, curb, and gutter other related work.         | Modernization |
| ARRA-SUP0(200)A     | SS74901C     | SUP            | 000          | May 2010       | Main Street Reconstruction - Pavement Preservation   | Preservation  |

**Table 5: Projects Currently in Design on US 60|US 70|US 191 Corridor**

| Project Name   | TRACS Number | Milepost | Type          |
|--|--------------|----------|---------------|
| <b>US 191</b>  |              |          |               |
| US 191, Relation Street – US 70 Sidewalks & Intersection Improvement Project               | H8324        | 120      | Modernization |
| Cochise TI (Intersection of US 191 and I-10 west of Willcox)                               | H8534        | 65       | Preservation  |
| US 191, SR 366 – Fairgrounds   | H8700        | 113      | Modernization |
| US 191, Back Country Byway to MP 151   | H8701        | 151      | Preservation  |
| <b>US 70</b>   |              |          |               |
| US 70 Bylas Safety Improvement Project   | H7637        | 291      | Modernization |
| US 70 Matthews ville Wash Bridge #304 Scour Repair Project                                 | HXXXX        | 326      | Preservation  |
| US 70, Tripp Canyon – 300 West (concrete sidewalk and pedestrian bridge parallel to US 70) | H8397        | 335      | Expansion     |
| Various Bridges (scour retrofits)  | H8547        | 299      | Preservation  |
| US 70, Lone Star Road – Jct 191 (Project will begin just east of 8th Street)               | H8789        | 342      | Preservation  |
| US 70, 20th Ave. – 8th Street  | H8917        | 338      | Modernization |
| US 70 Intersection Improvements at BIA Route 6   | H8740        | 260      | Modernization |
| SCAT Turn Lanes US 70  | H8859        | 270      | Modernization |
| <b>US 60</b>   |              |          |               |
| US 60 Pinto Creek Bridge (Str. No. 351), Bridge Replacement Project                        | H8243        | 238      | Modernization |
| US 60 Queen Creek Bridge, Bridge Replacement Project                                       | H8566        | 223      | Modernization |

Figure 4: US60 | US 70 |US 191 Corridor Recommendations Not Yet Implemented



## 3.0 CONCLUSION

### 3.1 District Discussions

An ADOT Southeast District meeting was held on December 8, 2015, in conjunction with the I-10 East Corridor Profile Study team. Attendees included Tazeen Dewan (ADOT MPD), Asad Karim (ADOT MPD), Paul David (ADOT Southeast District), Bill Harmon (ADOT Southeast District), Tom Engel (ADOT Southeast District - Maintenance), Art Baeza (ADOT Southeast District), Wayne Grainger (Southeast District – Globe), Dee Crumbacher (Southeast District – Tucson), Maria Deal (Southeast District – Globe), Michael LaBianca (HDR), Avi Schmerer (HDR), Joy Melita (PB), and Jennifer Love (PB).

#### US 191 Area

- Segments for US 191 as shown in the preliminary map seemed logical to the District.
- Segment 1A (US 191B) is in the process of being abandoned to the City of Douglas. The CPS will include a discussion of Segment 1A, but this segment will not be advanced in the process. It was noted that a new port of entry would potentially be located on James Ranch Road, if undertaken. Douglas is an oversized load port of entry unlike Mariposa, etc.
- Segment 1 roadway was updated in the 1970's. Some locations have narrow shoulders, but this segment generally does not have many problems.
- Segment 2, several issues were noted.
  - Narrow shoulders, in some areas less than two-feet wide.
  - A drainage outfall does not exist in the Elfrida area (community is unincorporated). As a result, drainage accumulates along the shoulders. Some urbanization has occurred in this area, but no solutions have been identified for the drainage. A US 191 DCR in Elfrida was completed in 2004 with a no-build recommendation. The District believes that a bypass alternative should be considered if reexamined.
  - Roadway overtopping occurs in this segment and drainage improvements are needed to provide an all-weather highway. The existing performance data may not capture the roadway overtopping impact accurately since these events do not always result in a full closure, just slowed traffic.
  - Recurring pavement issues are present between MP 45 and the Cochise Railroad overpass due to earth fissures.
  - Cochise Railroad overpass is a problem and realignment is the probable solution. It is functionally obsolete and structurally outdated. It has a narrow, steep approach and departure grades, in addition to soil problems. Oversized loads often encroach into the oncoming lanes when going over the bridge.

- the Cochise Railroad overpass. A DCR was initiated for the overpass, but solutions were not advanced. Potential solutions could involve flattening the horizontal curve. At its current location, the curve sits over the saturated soils of La Playa. If the DCR was reinitiated, it would likely consider alternatives that were previously not studied.
- In general, if Segment 2 were improved to provide shoulders and drainage facilities, it would be adequate. The capacity of this roadway meets the needs for the area (except it needs a turn lane at Sunsites).
- Segments 3, 4, 5 should provide a four-lane divided highway between I-10 and Safford, then a four-lane divided roadway with a raised median in the more urbanized area. Other items mentioned in this segment included:
  - Drainage overtops the roadway at a location south of Safford.
  - Oversized loads frequently use this route.
  - Detours occur on US 191 and US 70 between Lordsburg, New Mexico and the 352 TI when there's a closure on I-10. Signing improvements, either DMS or fold down static signs, are needed to assist in guiding traffic.

#### US 70 Area

- Segment 6; the Southeast District is willing to consider reducing US 70 to a three-lane section in the Pima area. Concerns were noted about pedestrian safety and that bulbouts may improve current conditions. Wide agricultural implements operating on US 70 from Fort Thomas to Solomon disrupt traffic and would be less obtrusive if the shoulders were wider.
- Segments 7 and 8; the following notes were made:
  - Adjust Segments 7 and 8 boundary to be closer to MP 298 at the Gila River.
  - Bylas improvements are under design right now.
  - In general, passing lanes are needed. Particularly in the hilly portion of the segments, from Gila River to San Carlos.
  - Minor improvements are planned just west of Peridot for passing lanes.
- Segments 8-11: future four-lane divided, interim passing lanes are needed for safety.
- Segment 9: modify limits to include new medical center and high school area. It's preferable to keep this as a separate segment due to the different operating environment, even though it is short.
- Segment 11: Suggested moving eastern segment limit to the border of the San Carlos Indian Community. It's preferable to maintain an exclusively reservation segment since it has independent transportation plans.
- Intersection of US 70 and SR 77 has historic problems due to the grades on the approaches, particularly on SR 77 where vehicles don't always stop. The Junction of US 70 and SR 77 is a T-intersection. The northbound approach and the eastbound approach are on downgrades and the westbound approach is level.

- Add the Bylas area as a separate segment since the operating environment is different from the adjacent segments.
- Combine Segments 11 and 12 since they have the same operating environments, though they are on different routes.
- Throughout the US 70 Gila Valley communities, it was noted that changing land use will need to be considered as part of implementing future improvements. There is less farming and more development. How drainage is addressed continues to be a concern. Stormwater comingles with irrigation water in some areas and debates arise over who pays for what. Changing land use seems to be occurring with higher traffic volumes and more demand for access. This culture change may influence the selection of improvement alternatives in the long run. Runoff from the fields where farm fields are on both sides of the highway is conveyed in irrigation structures. With increased commercial or residential development the culverts are likely to receive more runoff and will not be adequate for the larger flow.

#### US 60 Area

- Segments 13, 14, 15, and 16; work is either underway or recently completed in these segments. This may impact the assessment of existing performance since the available data may not reflect the latest condition. The team will need to review the resulting needs closely and determine if recent improvements have been addressed.
- A previous study for alternative alignments of US 60/US 70 between Superior and Globe including a Globe area rerouting was initiated, but was cancelled in 2013 due to financial feasibility. This study, though not completed, should be documented in the literature review.
- US 60 traverses mountainous terrain, which affects the corridor regarding:
  - Possible need for additional truck escape ramps.
  - Bicyclist and pedestrian accommodations going through terrain.
  - Sight distance issues. More work is still needed in the Oak Flats area.
  - Places to pull off for construction, emergencies, etc.
- Segment 13: Improvements in this segment include Oak Flats climbing lanes (underway), rock fall mitigation at Queen Creek Tunnel (recently completed), Pinto Creek Bridge (under design), Silver King to Superior project (under construction), Queen Creek Tunnel Lighting (under construction), Waterfall Canyon Bridge (under construction).
- Segments 14 and 15: Expansion of the Resolution Copper mine in Superior will increase truck traffic in these segments from the Magma Mine entrance to Florence Junction. A traffic impact analysis is currently underway for the Resolution Mine expansion.
- DMS signs are planned for the climb up to Top of the World/Globe. Here are the DMS sites proposed in the US 60/US 70 corridor in the Superior to Globe area: US 60 WB MP 246; US 70, EB MP 253.

### 3.2 Next Steps

The next steps in the Corridor Profile Study process will be to collect and analyze the most recent data, identify current needs, and develop performance goals and objectives for the corridor. The previously recommended projects documented in this working paper will be used as a baseline for project recommendations, although current data will be used to verify needs and priorities. These recommendations will help to understand the corridor, ultimately building the foundation for identifying strategic corridor investments in the categories of preservation, modernization and expansion in the performance areas of Pavement, Bridge, Mobility, Safety and Freight. The identified strategic investments will be considered with other candidate projects in the ADOT programming process.